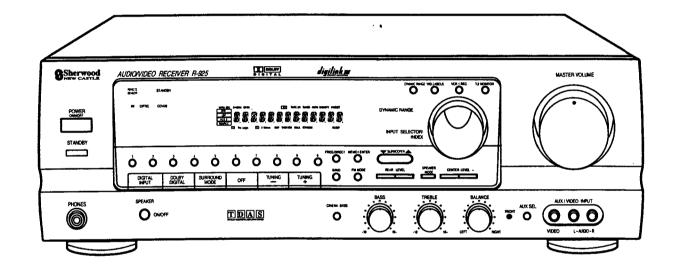
SERVICE MANUAL

R-925R/R-925RDS

AUDIO/VIDEO AC-3, PRO-LOGIC RECEIVER



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SAFETY PRECAUTIONS

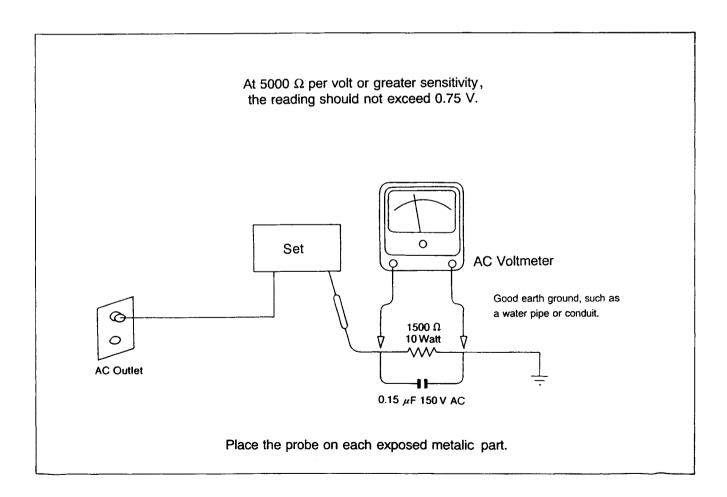
WARNING

Before servicing this unit, familiarize yourself with the following precautions:

1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltge, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Before returning the set to the customer, always do an AC leakage current check on the exposed metal parts of the cabinet, such as terminals, screw heads, and metal overlays, to be sure the set is safe to operate danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet (120 V AC version only). (Do not use a line isolation transformer during this check.) Be sure your AC voltmeter has a sensitivity of 5000 Ω per volt or greater. Then connect a 1500 Ω 10 watt resistor, paralleled by a 0.15 µF 150 V AC capacitor, between a known good earth ground (such as a water pipe, or conduit) and the exposed metalic is parts, one at a time. Measure the AC voltage across the combination of a 1500 Ω resistor and a 0.15 μF capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metalic part. Voltage measured must not exceed 0.75V RMS. This corresponds to 0.2 mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



SPECIFICATIONS

FRONT AMP SECTION (ALL)

Measuring methods are based on IHF and IEC standard 268-3

Measurements conditions, unless otherwise noted:

Output resistive load = (8) ohms / Both channel driven

Tone(Bass,Treble), Balance, EQ control: Center Position, Other SW's: OFF Nominal input level: 5mV for MM, 0.5mV for MC, 500mV for general purpose inputs

Power figures should be kept minimum 10min. between 15 and 35°C Terminator: 100ohm for MC, 1kohm for MM and general purpose inputs

Filter: IHF-A filter.
R/O = Rated Output

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT L/R	NOMINAL L/R
1	INPUT SENSITIVITY	CD	1kHz		mV	200±30	200±20
		MM	1kHz		mV	3.5±0.5	3.5±0.3
		MC	1kHz		mV		
		MIC	1kHz		mV		
2	CHANNEL BALANCE	CD.	1kHz	R/O TO -40dB	dB	±3	±2
		CD	1kHz				
3	DAMPING FACTOR	CD	1kHz				
4	RESIDUAL NOISE	CD	1kHz	VOL min.	mV	≤1	
		CD	1kHz	VOL max.	mV		
5	TOTAL HARMONIC DISTORTION		(20)Hz	R/O / 1W	%	≤0.2	≤0.09
		CD(500mV)	1kHz	"	%	≤0.2	≤0.09
			(20)KHz	"	%	≤0.3	≤0.2
6	CONTINUOUS AVERAGE POWER		(20)Hz	(8)ohms	٧	100	102
	at (0.2)% THD	CD	1kHz	п	W	100	102
			(20)KHz	"	W	100	102
7	IMD(SMPTE)	CD/500m\/\	60Hz=4	R/O	%	≤0.1	≤0.07
		CD(500mV)	7kHz=1	1W	%	≤0.1	≤0.07
8	S/N RATIO,IHF-A FILTER	CD(500) 0	1kHz	R/O	dB	≥90	≥93
		CD(500mV)	1kHz	1W	dB		
		1414/510	1kHz	R/O	dB	≥68	≥72
		MM(5mV)	1kHz	1W	dB		
		MC(D.E)/	1kHz	R/O	dB		
		MC(0.5mV	1kHz	1W	dB		
9	CHANNEL SEPARATION		100Hz	R/O-3dB	₫₿	≥45	≥55
		CD(500mV)	1kHz	"	dB	≥45	≥55
			10kHz	"	dB	≥40	≥45
10	FUNCTION CROSSTALK	CD→AUX	1/10 kHz	11	dB	≥60/40	≥ 65/45
		CD→MM	1/10 kHz	, "	dB	≥60/40	≥65/45
		MM→CD	1/10 kHz	"	dB	≥60/40	≥ 65/45
			1/10 kHz	"	dB		
11	FREQUENCY RESPONSE (-3dB)	CD(500mV)		1W	Hz~kHz	20~50	10~60
12	TONE CONTROL, ±(10)dB	CD.	100Hz	1W	dB	±10±2	±10±1
		CD	10kHz	"	dB	±10±2	±10±1
13	SUBWOOFER OUT (1ch input)	CD(200mV)	30Hz	M-Vol Max	٧	1.6±0.3	1.6±0.2
14	PHONO EQUALIZATION	101	100Hz	TAPE OUT	dB	+13.1±1.5	+13.1±1
		W	10KHz	"	dB	-13.7±1.5	-13.7± 1
15	INPUT OVERLOAD	CD	1kHz	S/P OUT	mV		
	at 0.5% THD	ММ	1kHz	TAPE OUT	mV	≥120	≥ 140
		MC	1kHz	"	mV		
		MIC	1kHz	"	mV		

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT L/R	NOMINAL L/R
16	HEADPHONE OUTPUT	CD	1kHz	R/O	mV		
	H/P = 64ohms	(150)mV	1kHz	R/O	mV		
17	FTC POWER 20Hz~20kHz		20Hz	"	W		
	at ()% THD	CD	1kHz	"	W		
	·		20kHz	"	W		
18	DIN POWER at 1% THD	CD	1kHz	"	W		
19	DYNAMIC POWER OUTPUT	CD 1kHz ()ohr	/\ab==	w			
	20 cycle ON,480 cycle OFF	СВ	1kHz	()ohms	VV		
20	POWER BANDWIDTH -3dB	CD		R/O	Hz~kHz		
21	SLEW RATE	CD	1kHz	R/O	V/usec		
22	SLEW-FACTOR	CD(500mV)					
23	INPUT IMPEDANCE	CD	1kHz		kohm		
		ММ	1kHz		kohm		
		MC	1kHz		kohm		
		MIC	1kHz		kohm		• •

REAR AMP SECTION

Measurements conditions : Input level (350mV)

Rear level max., Master volume adj. Delay time 20ms

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT L/R	NOMINAL L/R
1	POWER OUTPUT 1% THD	CD	1kHz	(8)ohms	W	≥90	≥93
2	TOTAL HARMONIC DISTORTION	CD	1kHz	1W	%	≤1	≤0.7
3	S/N RATIO DOLBY	CD		R/O	dB	≥55	≥63
	IHF-A FILTER, THEATER	CD		"	dB	≥55	≥63
	HALL	CD		"	dB	≥55	≥63
	STADIUM	CD		,,	dB	≥55	≥63
	CHURCH	CD		"	dB	≥55	≥63
4	FRE RES.(ONLY DOLBY) ±3dB	CD	1kHz	1W	Hz~kHz	100~6	80-7

CENTER AMP SECTION

Measurements conditions : Input level (350mV)

Center level max., Master volume adj.

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT L/R	NOMNIAL LR
1	POWER OUTPUT at 0.3% THD	CD	1kHz	(8)ohms	W	≥90	≥93
2	TOTAL HARMONIC DISTORTION	CD	1kHz	1W	%	≤0.3	≤0.2
3	S/N RATIO,IHF-A FILTER	CD		R/O	dB	≥55	≥60
4	FRE. RESPONSE LARGE	CD		1W	Hz~kHz	20~18K	15~2OK
	DOLBY MODE SMALL	CD		1W	Hz~kHz	135~18K	120-2 . OK

VIDEO SECTION

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT L/R	NOMNIAL LR
1	OUTPUT LEVEL at 75ohms	VCR1(1Vp-p)	1MHz		Vp-p	1±0.2	1±0.1
2	FREQUENCY RESPONSE	"	1MHz		Hz~MHz	DC~6	DC-6,3
3	S/N RATIO	"	1MHz		dB	40	45
4	CROSSTALK	"	1MHz		dB	40	45

● AC-3 SECTION (ALL)

Measurements conditions, unless otherwise noted : Input Function : LD

Digital Input Mode : LD RF

Speker Mode : Center:LARGE, Sub-Woofer:YES Main Vol Position : 1 Vrms Output Position

Trim Vol Position : All "0 dB"

Test Point : Pre-Out

Test disc : DOLBY TEST LD VERSION 1.0 Center, Rear delay : 0 ms

NO	DESC	RIPTION	SIGNAL	INPUT	CHAPTER	UNIT	LIMIT	NOMINAL
1	Output Level		1kHz	0dB	38	V	0.9±0.3	0.9±0.2
	MEASU	JREMENT	L	С	R	LS	RS	EW
	Main Vol Level : "58"Position		30Hz	0dB	18	V	3.0±0.8	3.0±0.5
	MEASU	JREMENT					, ideal	sw
2	Output Level		1kHz	0dB	38	m∨	≤0.2	≤0.15
	MEASU	JREMENT	L	С	R	LS	RS	SV.
	at MIN.VOL.		30Hz	0dB	18	m∨	≤0.2	≤0.15
	MEASU			R	13	F#3	SW	
3	S/N Ratio	PRE-OUT : 100mV "A"Weighted	1kHz	-20dB	6	dB	≥60	≥65
	MEASL	REMENT	L	С	R	LS	R\$	SW
		PRE-OUT : 1V Unweighted	30Hz	0dB	18	dB	≥60	≥65
	MEASU	IREMENT		e		13	- 8	SW
4	T.H.D	PRE-OUT: 100mV	1kHz	-20dB	6	%	≤0.5	≤0.3
	MEASU	IREMENT	L	С	R	LS	RS	389
		PRE-OUT : 1V	30Hz	0dB	18	%	≤0.3	≤0.2
	MEASUREMENT			4		LS	R\$	SW
5	Channel Separation	L	1kHz	0dB	8	dB	Other 0	Channel
	MEASL	IREMENT		ပ	R	LS	RS	SW
		С	1kHz	0dB	10	dB	≥60	≥65
	MEASL	REMENT	L	- 0	R	LS	RS	SIV
		R	1kHz	0dB	12	dB	L <-	-> R
	MEASL	PREMENT	L	С		LS	RS	SW
	•	LS	1kHz	OdB	14	dB	≥50	≥55
	MEASL	IREMENT	L	С	R	LS	RS	SIV
		RS	1kHz	0dB	16	d₿	ALL <> S	ub-Woofer
	MEASL	IREMENT	L	С	R	LS		SW
		sw	30Hz	0dB	18	dB	≥30	≥35
	MEASU	JREMENT	L	С	R	LS	RS	
6	Frequency Response	Sub-woofer:YES Center:SMALL	30Hz (1kHz)	0dB	20 (38 :ref)	dB	≤-15	≤-20
	MEASL	REMENT	L	С	R	LS	RS	
	at M-Vol Level:"50"	Rear:Yes	1kHz (30Hz)	0dB	38 (20 :ref)	dB	≤-30	≤-35
	MEASL	REMENT					Es Es	SW
·		Sub-woofer:NO Center:LARGE	30Hz (1kHz)	0dB	20 (38 :ref)	dB	8.5±1.5	8.5±1
	MEASU	JREMENT	L		R	13		- 80°

NO	DESC	RIPTION	SIGNAL	INPUT	CHAPTER	UNIT	LIMIT	NOMINAL
7	Dialog Normalization		1kHz	0dB	43	dB	-10±1	-10±0.5
Ì	MEASUREMENT		L	С	R	LS	RS	E 500
	Main Vol Level : "50"Position		30Hz	0dB	43	dB	-10±1	-10±0.5
	MEASL	JREMENT		4			g/s	sw
8	Down Mix level	AC-3 mode						
l	MEASU	JREMENT					1.5	
İ	Main Vol Level :	Stereo Key : ON	1kHz	0dB	38	dB	-3.2±0.5	-3.2±0.3
ļ	MEASL	JREMENT	L	G	R	18	Pg	599
	"50"Position	Sub-woofer : NO						
Ì	MEASU	JREMENT		-0			182	-5W
9	Down Mix Frequency Response Main Vol Level : "50"Position	same as above	30Hz(1kHz)	0dB	20(38:ref)	dB	±1	±0.5
	MEASL	JREMENT	L		R	LS	F(S	
10	Channel across level	C-> L, R Center 0dB Setting Center : No	1kHz	0dB	10	dB	-3 ± 1	-3 ± 0.5
1	MEASU	JREMENT	L		R		- 23	377
	Main Volleyel	Ls-> L Ls 0dB Setting Rear : No	1kHz	0dB	14	dB	-3 ± 1	-3 ± 0.5
-	MEASU	JREMENT	L	C		13	- 189	3W
	"58" Position	Rs-> R Rs 0dB Setting Rear : No	1kHz	0dB	16	dВ	-3 ± 1	-3 ± 0.5
		JREMENT		C	R	13	R\$	SW
		SubWoofer -> L, R Sub 0dB Setting , Sub : No	30Hz	0dB	18	dB	-5.5 ± 1	-5.5 ± 0.5
		JREMENT	L	6	R	1.8	T#3	SW
11	LFE Signal across level	L/C/R/Ls/Rs -> Sub Out (1) Sub : Yes	30Hz	0dB	20	٧	1.8 ± 0.5	1. 8 ± 0.3
	MEASU	JREMENT		3		LS		SW
		L/C/R/Ls/Rs -> Sub Out (2) (1): 0dB, Stereo: On, Sub: Yes	30Hz	0dB	20	dB	-11 ± 2	-11± 1
	MEASL	JREMENT (0)		C		13		SW
	"50" Position	C/Ls/Rs -> L, R (3) (2): 0dB, Stereo: On, Sub: No	30Hz	0dB	20	dB	-5.5 ±3	·5.5 ± 2
	MEASL	JREMENT	L	•	R	LS.	R\$	39W
12	LFE Signal across level	L/C/R/Ls/Rs/LFE-> Sub Out (1) Sub : Yes	30Hz	0dB	22	٧	2.5≤±0.8	25 ≤ ± 0.5
		JREMENT		С	R			SW
	Main Vol level	L/C/R/Ls/Rs/LFE ->Sub Out (2) (1): 0dB, Stereo: On, Sub: Yes	30Hz	0dB	22	dB	-11≤±2	.1 1≤±1
	MEASL	JREMENT		<u> </u>		LS	RS	sw
	"50" Position	"50" Position C/Ls/Rs/LFE -> L, R (3) (2): 0dB, Stereo: On, Sub: No		0dB	22	dB	-6.5≤±3	-6.5≤±2
	MEASU	JREMENT	L		R	1.S		B
13	Dynamic Range	Main Vol Level : "50" Position	1KHz	OdB	38	dB	-22≤±2	22≤±1
	MEASL	L	С	R	LS	RS	5v _	
ì		30Hz	l OdB l	18	dB	±1	二二十0.5	

FM SECTION

Measuring methods in confirmity with IEC standard 315

Measurements condition FM: Radio frequency = 98.1MHz, Audio frequency = 1kHz

Reference level = 1mV on (75ohms, 300ohms)

Deviation : MONO = ± 75 kHz, Stereo = ± 67.5 kHz ± 7.5 kHz (A, K)

MONO = ± 40 kHz, Stereo = ± 40 kHz ± 7.5 kHz (D/RDS)

Test Point : TP 1 = 90.1MHz, TP 2 = 98.1MHz, TP 3 = 106.1MHz (A, K)

TP 1 = 90.0MHz, TP 2 = 98.0MHz, TP 3 = 106.0MHz (D/RDS)

Filter = B.P.F at STEREO

NO	DESCRIPTION		UNIT	LIMIT L/R	NOMINAL L/R	VERSION
1	TUNING RANGE	LOW ~ HIGH	MHz		107.9M	A, K
	STEP	AUTO/Man.	kHz		00	n
		LOW ~ HIGH	MHz	87.5~	108.0M	D/RDS
	•	AUTO/Man.	kHz		0/50	"
2	USABLE SENSITIVITY	TP 1	dBf	≤17.2	≤14.2	A, K
	S/N = 30dB	TP 2	dBf	≤ 17.2	≤ 14.2	11
	•	TP 3	dBf	≤17.2	≤ 14.2	н
	USABLE SENSITIVITY	TP 1	dBf	≤17.2	≤14.2	D/RDS
	S/N = 26dB	TP 2	dBf	≤ 17.2	≤14.2	ti .
		TP 3	dBf	≤17.2	≤14.2	11
3	FULL LIMITING SENSE	OUTPUT = -3dB	dBf	≤ 15.2	≤12.2	
4	AUTO STOP LEVEL		dBf	31.2±5	31.2±3	
5	AUTO SCAN ERROR		kHz	±20	±25	A, K
			kHz	± 15	±20	D/RDS
6	S/N RATIO	MONO	dB	≥65	≥70	-
	IHF-A FILTER	STEREO	dB	≥60	≥65	
7	TOTAL HARMONIC DISTORTION	MONO	%	≤0.5	≤0.3	
		STEREO	%	≤0.8	≤0.5	
8	50dB QUIETING SENS.	MONO	dBf	≤23.2	≤20.2	A, K
		STEREO	dBf	≤48.3	≤45.3	п
	46dB QUIETING SENS.	MONO	dBf	≤23.2	≤20.2	D/RDS
		STEREO	dBf	≤48.3	≤45.3	H
9	CHANNEL SEPARATION	100Hz	dB	≥35	≥40	A, K
		1kHz	dB	≥40	≥45	н
		10kHz	dB	≥30	≥35	11
		100Hz	dB	≥32	≥37	D/RDS
		1kHz	dB	≥37	≥42	41
		10kHz	dB	≥27	≥32	11
10	FREQUENCY RESPONSE AT ± 1.5dB		Hz	20~12.5K	10~14K	
11	SPURIOUS RESPONSE		dB	≥70	≥80	A, K
			dB	≥80	≥90	D/RDS
12	IF REJECTION	TP 1	dB	≥70	≥80	
13	IMAGE REJECTION	TP 3	dB	≥60	≥65	A, K
		TP 3	dB	≥70	≥80	D/RDS
14	AM REJECTION RATIO		dB	≥47	≥52	
15	RF INTERMODULATION		dB			
16	CAPTURE RATIO		dB	≤2.5	≤2	
17	ALTERNATIVE CH SELECTIVITY	± (400)kHz	dB	≥42	≥47	
19	OUPUT LEVEL MONO		mV	500 ± 150	500 ± 100	
20	RDS SENSITIVITY		dBf	≥40.2	≥38.2	RDS ONLY

AM SECTION

Measuring methods in confirmity with IEC standard 315

Measurements condition AM - MW: Radio frequency = 1000/999kHz, Audio frequency = 400Hz

LW: Radio frequency = 207kHz, Audio frequency = 400Hz

Reference level = 5mV/m,10mV/m on 50ohms

Modulation = 30%

Test Point: MW TP1 = (594)kHz TP2 = (999)kHz TP3 = (1404)kHz (K, D/RDS)

Test Point: MW TP1 = (600)kHz TP2 = (1000)kHz TP3 = (1400)kHz (A)

LW TP1 = (162)kHz TP2 = (207)kHz TP3 = (252)kHz

NO	DESCRIPTIO	N	UNIT	LIMIT L/R	NOMINAL L/R	VERSION
1	TUNING COVER RANGE	LOW ~ HIGH MW	kHz	522-	-1611	K, D/RDS
		LW	kHz			11
	STEP	AUTO/Man.	kHz		9	11
		LOW ~ HIGH MW	kHz	520-	-1710	Α
		LW	kHz			11
		AUTO/Man.	kHz	,	10	11
2	USABLE SENSITIVITY	MW TP 1	uV/m	≤800	≤500	
		TP 2	uV/m	≤800	≤500	
	S/N = 20dB	TP 3	uV/m	≤800	≤500	
		LW TP 1	uV/m			
		TP 2	uV/m			
		TP 3	uV/m			
3	S/N RATIO	MW	dB	≥35	≥40	K, D/RDS
		LW	dB			
		MW	dB	≥40	≥45	Α
		LW	dB			
4	TOTAL HARMONIC DISTORTION		%	≤2	≤ 1.0	K D/RDS
			%	≤1.5	≤1.0	Α
5	OVER LOAD DISTORTION 5mV 80%	MOD	%	≤10	≤5	
6	FREQUENCY RESPONSE at -6dB	MW	Hz	100~2K	80~2.2K	
		LW	Hz			
7	SELECTIVITY 10kHz/9kHz	MW	dB	≥20	≥25	
		LW	dB			
8	AGC FIGURE OF MERIT		dB	≥ 50	≥ 55	
9	IMAGE REJECTION	MW = TP 3	dB	≥30	≥35	
		LW = TP 3	dB			
10	WHISTLE MODULATION	2IF	%	≤ 15	≤10	
	INPUT = 1mV/m	3IF	%			
11	AUTO STOP LEVEL	MW	uV/m	800(±6dB)	800(±5dB)	
		LW	uV/m			
12	TUNED LEVEL	MW	uV/m	800(±6dB)	800(±5dB)	
		LW	uV/m			
13	OUTPUT LEVEL		mV	120 ± 50	120±30	A, K
			mV	150 ± 50	150±30	D/IRDS

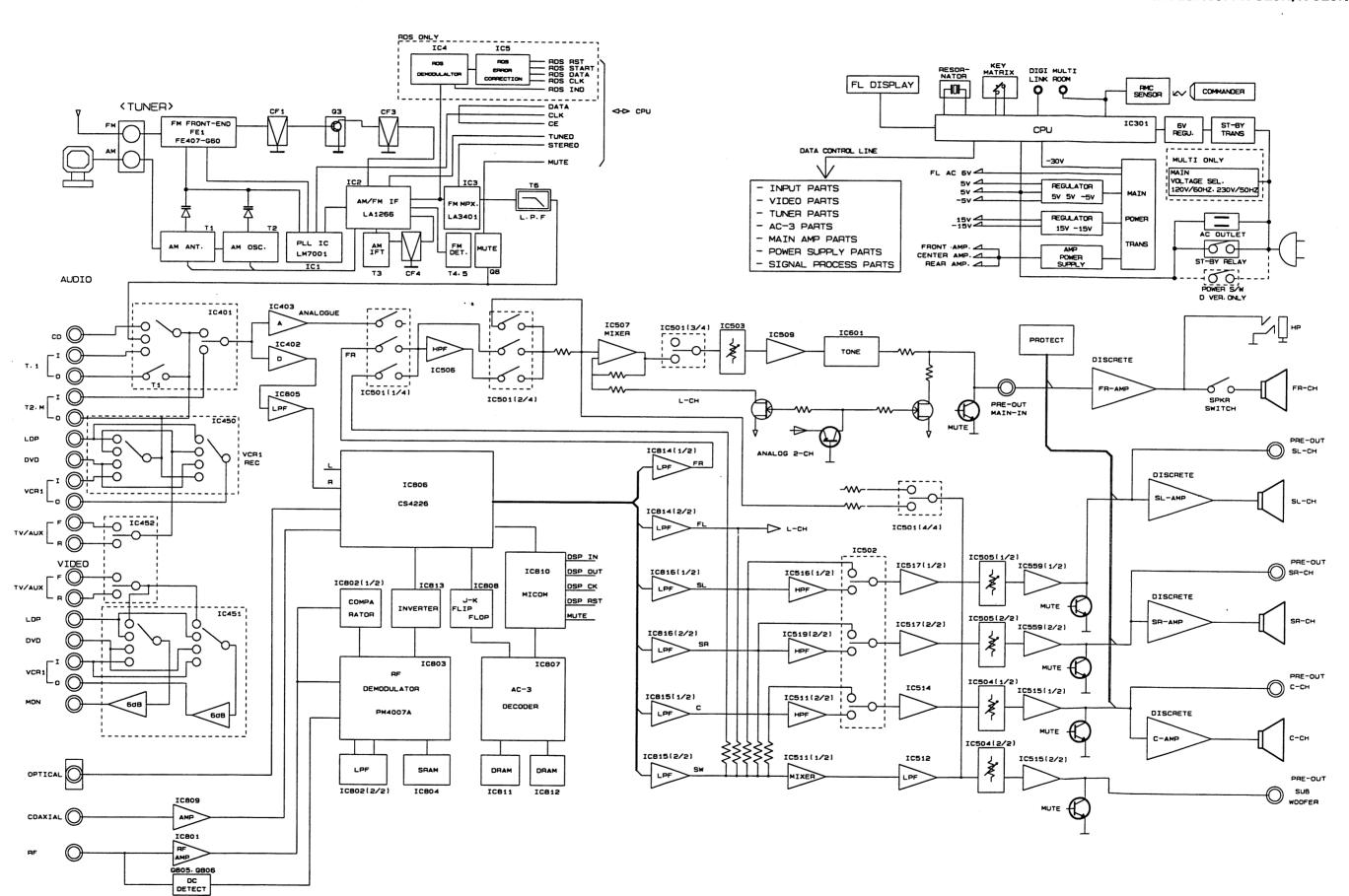
GENENAL

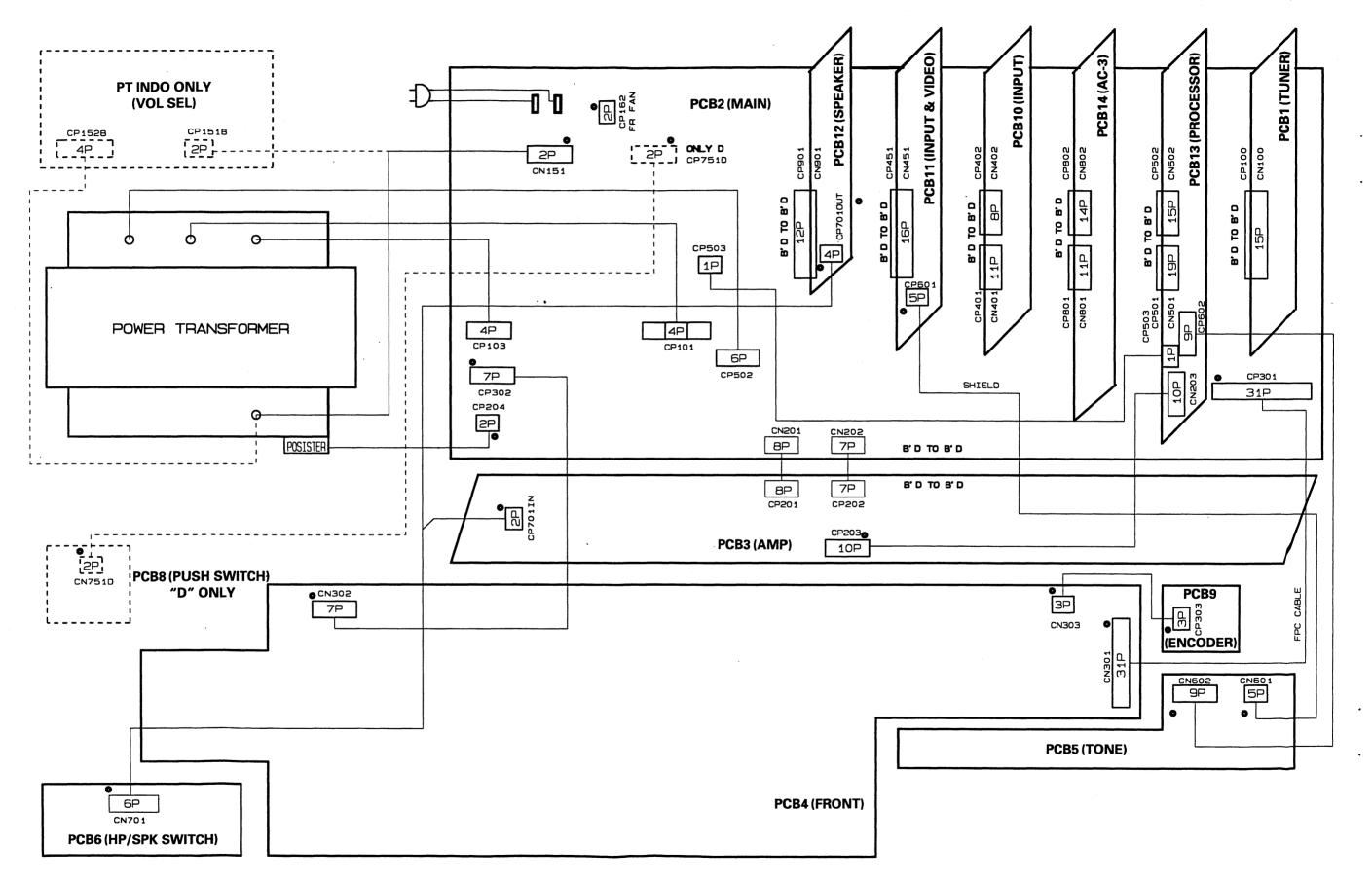
Power consumption	A : 2.3A, D : 550W, K : 450W
Power supplies	A : AC 120V, 50Hz (A ✔ersion)
	D : AC 220V, 50Hz (D/RD\$ ✓ ersion)
	K: AC 220V, 60Hz (K√ersion)
Dimensions (W \times H \times D)	440×125× 300mm
	$17 - 5/16 \times 4 - 15/16 \times 1$ 1.8inchs
Weight (Net)	· 10.5kg

NOTES

BLOCK DIAGRAM

Model No.: R-925R/R-925RDS

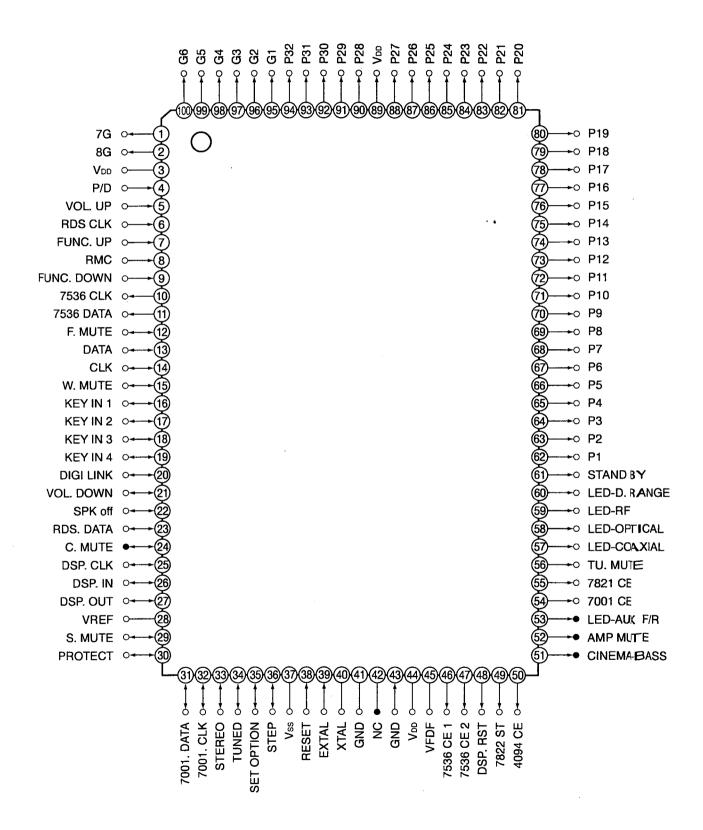




CIRCUIT DESCRIPTION

IC301: CXP-82852-114Q, DWP427

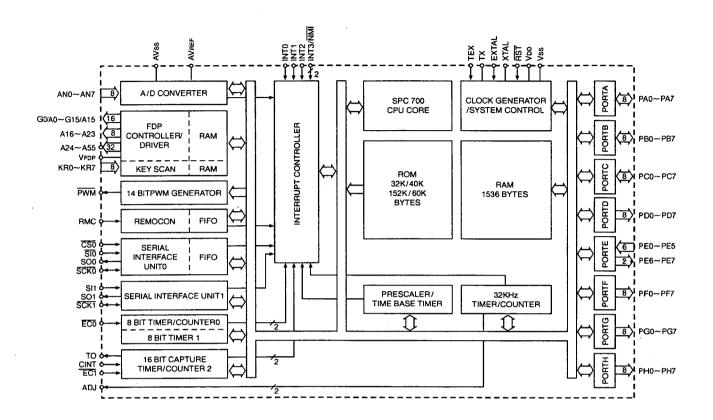
1. Pin Description



2. Main CPU Pin Functions

Z. Wall Of	O Pin Functions	
Pin No.	Symbol	Description
1~2	7G~8G	Grid signal output for FIP.
3	VDD	+5V power supply.
4	P/D	Input for power down.
5	VOL. UP	Input for main volume up.
6	RDS CLK	CLOCK signal output for TDA7330.
7	FUNC. UP	Input for main function up.
8	RMC	input for remocon data.
9	FUNC. DOWN	Input for main function down.
10	7536CLK	CLOCK signal output for LC7536
11	7536DATA	DATA signal output for LC7536
12	F. MUTE	Output for front channel mute.(At "H", it is active.)
13	DATA	DATA signal output for LC7821 and LC7822.
14	CLK	CLOCK signal output for LC7821 and LC7822.
15	W. MUTE	Output for subwoofer mute.(At "H", it is active.)
16~19	KEY IN1~4	Data input for key scan.
20	DIGI LINK	Input/Output for controlling digi-link III
21	VOL. DOWN	Input for main volume down.
22	SPK OFF	Input for detecting "SPEAKER SWITCH IS OFF" condition.
23	RDS. DATA	Input for RDS data of TDA7330.
24	C. MUTE	Output for center channel mute.(At "H", it is active.)
25	DSP. CLK	CLOCK signal input from IC810(uPD78044, pin 9).
26		
	DSP. IN	DATA signal input from IC810(uPD78044, pin 11).
27	DSP. OUT	DATA signal output to IC810(uPD78044, pin 10).
28	VREF	Reference voltage.(Connected to +5V, Not VDD.)
29	S. MUTE	Output for surround channel mute.(At "H", it is active.)
30	PROTECT	Input for detecting "PROTECTION" condition.
31	7001. DATA	DATA signal output for LM7001.
32	7001. CLK	CLOCK signal output for LM7001.
33	STEREO	Input for detecting "STEREO" condition.
34	TUNED	Input for detecting "TUNED" condition.(At "L", it is active.)
35	SET OPTION	Input for selecting set.(5V:RDS Receiver, 0V:Receiver.)
36	STEP	Input for selecting the frequency ranges steps of FM and AM.
37	VSS	This pin provides the ground potential.
38	RESET	Input for resetting the CPU.(At "L", it is active.)
39	EXTAL	Input for 10MHz crystal oscillator.
40	XTAL	Output for 10MHz crystal oscillator.
41	G	Ground.
42		Not used!
43	G	Ground.
	VDD	
44		+5V power supply.
45	VFDF	-30V power supply for FIP.
46	7536CE1	Chip enable signal output to LC7536.(Front channel electric volume)
47	7536CE2	Chip enable signal output to LC7536.(Center, rear and woofer CH. electric vol.)
48	DSP. RST	RESET signal output to IC810(uPD78044, pin 17).
49	7822ST	Chip enable signal output to LC7822.
50	4094CE	LC7536 CHIP ENABLE(FRONT VR).
51	CINEMA-BASS	Output signal for Cinema-Bass function. (High Active)
52	AMP MUTE	Output for main mute.(At "H", it is active.)
53	LED-AUX F/R	Output to final mate.(At 11 , it is active.) Output to drive AUX FRONT/REAR LED.(At "H"-Front, "L"-Rear.)
54	7001CE	Chip enable signal output to LM7001.
55	7821CE	
56	TU. MUTE	Output for tuner mute.(At "H", it is active.)
57	LED-COAXIAL	Output to drive COAXIAL LED.(At "H", it is active.)
58	LED-OPTICAL	Output to drive OPTICAL LED.(At "H", it is active.)
59	LED-RF	Output to drive RF LED.(At "H", it is active.)
60	LED-D.RANGE	Output to drive Dynamic Range LED.(At "H", it is active.)
61	STAND BY	Output to drive Power relay & Stand-by LED.(At "H", it is active.)
62~70	P1~P9	Segment signal output for FIP.
71~80	P10~P19	Segment signal output for FIPand data output for key scan.
81~88	P20~P27	Segment signal output for FIP.
89	VDD	+5V power supply.
90~94	P28~P32	Segment signal output for FIP.
95~100	1G~6G	Grid signal output for FIP.

3. Block Diagram



4. Key Matrix

		KEY CHECK								
	KEY SCAN 0 KEY SCAN 1 KEY SCAN 2 KEY SCAN 3 KEY SCAN 4 KEY SCAN 5 KEY SCAN 6 KEY SCAN 7 KEY SCAN 8 KEY SC							KEY SCAN 9		
	PIN 71	PIN 72	PIN 73	PIN 74	PIN 75	PIN 76	PIN 77	PIN 78	PIN 79	PIN 80
KEY IN1	SLEEP/	SEARCH	DSP	4	7	MEMORY	WOOFER	BAND	CENTER	DYNAMIC
PIN 16	ST-BY					ENTER	UP		LEVEL DW	RANGE
KEY IN2	AC-3	EON	PRO-	3	8	WOOFER	FM	PTY	CENTER	VCR1
PIN 17		TA	LOGIC			DOWN	MODE	SELECT	LEVEL UP	REC
KEY IN3	1	EON	TUNE	2	9	0	REAR	TURN		TAPE2
PIN 18		PTY	DOWN				LEVEL DW	UP		MONITOR
KEY IN4	POWER	DISPLAY	OFF	5	6	FREQUENCY	REAR	CINEMA	SPKR	VIDEO
PIN 19	(ST-BY)						LEVEL UP	BASE	MODE	LABELS

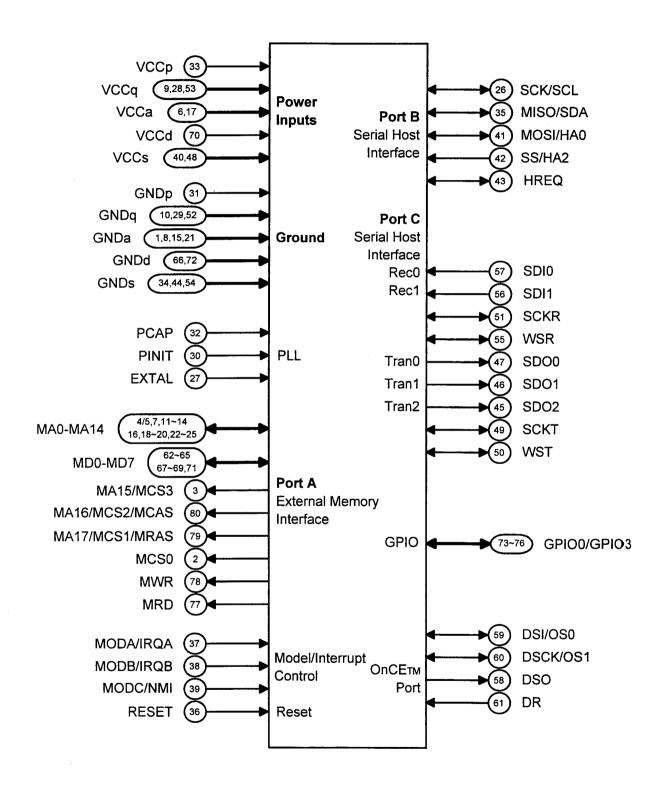
IC810: uPD78044

2-1.Sub CPU Pin Functions

Pin No.	Symbol	Description .			
	Symbol				
1~7	\(\(\mathcal{D}\)\)	Not used!			
8	VDD	+5V power supply.			
9	SCK0	CLOCK signal output to IC301(CXP82852, pin 25).			
10	SB1	DATA signal input from IC301(CXP82852, pin 27)			
11	.SB0	DATA signal output to IC301(CXP82852, pin 26)			
12~13		Not used!			
14	SCK1	CLOCK signal output to IC807(MC56009) and IC806(CS4226).			
15	SO1	DATA signal output to IC807(MC56009) and IC806(CS4226).			
16	SI1	DATA signal input from IC807(MC56009) and IC806(CS4226).			
17	RESET	RESET signal input from IC301(CXP82852, pin 50)			
18	P74	Ground.			
19	P73	Ground.			
20 ·	. AVSS	Ground.			
21	AN17	RESET signal output to IC806(CS4226).			
22	AN16	Not used!			
23	AN15	STROBE signal output to IC806(CS4226).			
24	AN14	Not used!			
25	AN13	Output for all channel mute.(At "L", it is active.)			
26~27		Not used!			
28	AN10	Sampling rate control port.(At "H", it is 48 kHz mode. At "L", it is 44.1 kHz mode.)			
29	AVDD	+5V power supply.			
30	AVREF	+5V power supply.			
31	XT1	Ground.			
32	XT2	Not used!			
33	VSS	This pin provides the ground potential.			
34	X1	Input for 4.19MHz crystal oscillator.			
35	X2	Output for 4.19MHz crystal oscillator.			
36	P37	Output for DSP mode.(At "H", it is active.)			
37	BUZ	General purpose I/O pin. This pin is connected pin 39 and pin 40			
38	PCL	IC803(PM4007) OSC control port.(At "H", it is OSC-OFF. At "L", it is OSC-ON.)			
39	TI2	This pin is connected pin 37 and pin 40			
40	TI1	This pin is connected pin 37 and pin 39			
41	TO2	Chip enable signal output to IC807(MC56009).			
42	TO1	RESET signal output to IC807(MC56009).			
43	TO0	Host request port from IC807(MC56009).			
44	C10	Test tone retry.(At "L", it is active.)			
45	INTP2	Input for detecting "OPTICAL INPUT".(At "L", it is active.)			
46	INP1	Input for detecting "COAXIAL INPUT".(At "L", it is active.)			
47	TI0	Input for detecting "AC-3 DATA" and "PCM DATA".(At "L", it is active.)			
48	IC	Ground.			
49~51		Not used!			
52	VDD	+5V power supply.			
53~70		Not used!			
71	VLOAD	Ground.			
72~80		Not used!			
00		1			

IC807: DSP56009 ⇒ SIGNAL/CONNECTION DESCRIPTIONS

3-1.Pin Discription



3-2. Pin Function

☞ SIGNAL GROUPINGS

Table 1-1 Functional Group Signal Allocations

Functional Group	Number of Signals	Detailed Description
Power (VCC)	9	Table 1-2
Ground (GND)	13	Table 1-3
Phase Lock Loop (PLL)	3	Table 1-4
External Memory Interface (EMI)	29	Table 1-5 and Table 1-6
Interrupt and Mode Control	4	Table 1-7
Serial Host Interface (SHI)	5	Table 1-8
Serial Audio Interface (SAI)	9	Table 1-9 and Table 1-10
General Purpose Input/Output (GPIO)	4	Table 1-11
On-Chip Emulation (OnCE) port	4	Table 1-12
Total	80	

☞ POWER

Table 1-2 Power Inputs

Power Name	Description
Vccp	PLL Power - Vccp provides isolated power for the Phase Lock Loop (PLL).
Vccq	Quiet Power - Vccq provides isolated power for the internal processing logic.
Vcca	Address Bus Power - Vcca provides isolated power for sections of the address bus I/O drivers.
Vccd	Data Bus Power - Vccd provides isolated power for sections of the data bus I/O drivers.
Vccs	Serial Interface Power - Vccs provides isolated power for the SHI and SAI.

☞ GROUND

Table 1-3 Grounds

Ground Name	Description				
GNDp	PLL Ground - GNDp is ground dedicated for PLL use.				
GNDq	Quiet Ground - GNDq provides isolated ground for the internal processing logic.				
GNDa	Address Bus Ground - GNDa provides isolated ground for sections of the				
	address bus I/O drivers.				
GNDd	Data Bus Ground - GNDd provides isolated ground for sections ofthe data				
	bus I/O drivers.				
GNDs	Serial Interface Ground - GNDs provides isolated ground for the SHI and SAL				

☞ CLOCK AND PLL SIGNALS

Table 1-4 Clock and PLL Signals

Signal Name	Signal Type	State during Reset	Signal Description
EXTAL	Input	Input	External Clock/Crystal - This input should be connected to an external clock source.
PCAP	Input	Input	PLL Filter Capacitor - This input is used to connect a high-quality (high "Q" factor) external capacitor needed for the PLL filter.
PINIT	Input	input	PLL Initialization (PINIT) - During the assertion of hardware reset, the value on the PINIT line is written into the PEN bit of the PCTL register.

☞ EXTERNAL MEMORY INTERFACE (EMI) Table 1-5 External Memory Interface (EMI) Signals

Signal Name	Signal Type	State during Reset	Signal Description
MA0 - MA14	Output	Table 1-6	Memory Address Lines 0-14 - The MA0-MA10 lines provide
			the multiplexed row/column addresses for DRAM accesses.
MA15	Output	Table 1-6	Memory Address Line 15 (MA15) - This line functions as the
			non-multiplexed address line 15.
MCS3			Memory Chip Select 3 (MCS3) - For SRAM accesses, this line
			functions as memory chip select 3.
MA16	Output	Table 1-6	Memory Address Line 16 (MA16) - This line functions as the
			non-multiplexed address line 16 or as memory chip select 2
			for SRAM accesses.
MCS2			Memory Chip Select 2 (MCS2) - For SRAM access, this line
			functions as memory chip select 2.
MCAS			Memory Column Address Strobe (MCAS) - This line
			functions as the Memory Column Address Strobe
			(MCAS) during DRAM accesses.
MA17	Output	Table 1-6	Memory Address Line 17 (MA17) - This line functions as the
			non-multiplexed address line 17.
MCS1			Memory Chip Select 1 (MCS1) - This line functions as chip
			select 1 for SRAM accesses.
MRAS			Memory Row Address Strobe (MRAS) - This line also
			functions as the Memory Row Address Strobe during
			DRAM accesses.
MCS0	Output	Table 1-6	Memory Chip Select 0 - This line functions as memory chip
			select 0 for SRAM accesses.
MWR	Output	Table 1-6	Memory Write Strobe - This line is asserted when writing to
			external memory.
' MRD	Output	Table 1-6	Memory Read Strobe - This line is asserted when reading
			external memory.
MD0 - MD7	Bidi-rectional	Tri-stated	Data Bus - These signals provide the bidirectional data bus or
			EMI accesses.

Table 1-6 EMI States during Reset and Stop States

Cianal	Operating Mode					
Signal	Hardware Reset	Software Reset	Individual Reset	Stop Mode		
MA0 - MA14	Driven High	Previous State	Previous State	Previous State		
MA15	Driven High	Driven High	Previous State	Previous State		
MCS3	Driven High	Driven High	Driven High	Driven High		
MA16	Driven High	Driven High	Previous State	Previous State		
MCS2	Driven High	Driven High	Driven High	Driven High		
MCAS:						
DRAM refresh disabled	Driven High	Driven High	Driven High	Driven High		
DRAM refresh enabled	Driven High	Driven High	Driven High	Driven High		
MA17	Driven High	Driven High	Previous State	Previous State		
MCS1	Driven High	Driven High	Driven High	Driven High		
MRAS:						
DRAM refresh disabled	Driven High	Driven High	Driven High	Driven High		
DRAM refresh enabled	Driven High	Driven High	Driven High	Driven High		
MCS0	Driven High	Driven High	Driven High	Driven High		
MWR	Driven High	Driven High	Driven High	Driven High		
MRD	Driven High	Driven High	Driven High	Driven High		

☞ INTERRUPT AND MODE CONTROL

Table 1-7 Interrupt and Mode Control Signals

Signal Name	Signal Type	State during Reset	Signal Description
MODA	Input	Input (MODA)	Mode Select A - This input signal has three functions:
!			 to work with the MODB and MODC signals to select
			the DSP's initial operating mode,
			to allow an external device to request a DSP
			interrupt after internal synchronization, and
			 to turn on the internal clock generator when the DSP
			is in the Stop processing state, causing the DSP to resume processing.
		:	MODA is read and internally latched in the DSP when the
			processor exits the Reset state.
IRQA			External Interrupt Request A (IRQA) - The IRQA input is a
			synchronized external interrupt request.
MODB	Input	Input (MODB)	Mode Select B - This input signal has two functions:
			 to work with the MODA and MODC signals to select
			the DSP's initial operating mode, and
			 to allow an external device to request a DSP
			interrupt after internal synchronization.
			MODB is read and internally latched in the DSP when the
			processor exits the Reset state.
IRQB			External Interrupt Request B (IRQB) - The IRQB input is a
			synchronized external interrupt request.

Table 1-7 Interrupt and Mode Control Signals

Signal Name	Signal Type	State during Reset	Signal Description
MODC	Input,	Input (MODC)	Mode Select C - This input signal has two functions:
	edge-		 to work with the MODA and MODB signals to select
	triggered		the DSP's initial operating mode, and
			to allow an external device to request a DSP
			interrupt after internal synchronization.
			MODC is read and internally latched in the DSP when the
			processor exits the Reset state.
NMI			Non-Maskable Interrupt Request - The NMI input is a
			negative-edge-triggered external interrupt request.
RESET	input	active	RESET - This input causes a direct hardware reset of the
			processor.

SERIAL HOST INTERFACE (SHI)

Table 1-8 Serial Host Interface (SHI) signals

Signal Name	Signal Type	State during Reset	Signal Description
SCK	Input or	Tri-stated	SPI Serial Clock (SCK) - The SCK signal is an output when
	Output		the SPI is configured as a master, and a Schmitt-trigger
		•	input when the SPI is configured as a slave.
SCL	Input or		I ² C Serial Clock (SCL) - SCL carries the clock for bus
	Output		transactions in the I ² C mode.
MISO	Input or	Tri-stated	SPI Master-In-Slave-Out (MISO) - When the SPI is
	Output		configured as a master, MISO is the master data input line.
SDA	Input or		I ² C Serial Data and Acknowledge (SDA) - In I ² C mode,
	Output		SDA is a Schmitt-trigger input when receiving and an
			open-drain output when transmitting.
MOSI	Input or	Tri-stated	SPI Master-Out-Slave-In (MOSI) - Then the SPI is configured
	Output		as a master, MOSI is the master data output line.
HA0	Input		I ² C Slave Address 0 (HA0) - This signal uses a
			Schmitt-trigger input when configured for the I2 C mode.
SS	Input	Tri-stated	SPI Slave Select (SS) - This signal is an active low
			Schmitt-trigger input when configured for the SPI mode.
HA2	Input		I ² C Slave Address 2 (HA2) - This signal uses a
			Schmitt-trigger input when configured for the I2 C mole.
HREQ	Input or	Tri-stated	Host Request - This signal is an active low Schmitt-trigger
	Output		input when configured for the Master mode, but an acive
			low output when configured for the Slave mode.

SERIAL AUDIO INTERFACE (SAI)

① SAI Receiver Section

Table 1-9 Serial Audio Interface (SAI) Receiver signals

Signal Name	Signal Type	State during Reset	Signal Description	
SDI0	Input	Tri-stated	Serial Data Input 0 - While in the high impedance state,	
			the internal input buffer is disconnected from the pin and	
			no external pull-up is necessary.	
SDI1	Input	Tri-stated	Serial Data Input 1 - While in the high impedance state,	
		·	the internal input buffer is disconnected from the pin and	
			no external pull-up is necessary.	
SCKR	Input or	Tri-stated	Receive Serial Clock - SCKR is an output if the receiver	
	Output		section is programmed as a master, and a Schmitt-	
			trigger input if programmed as a slave.	
WSR	Input or	Tri-stated	Word Select Receive (WSR) - WSR is an output if the	
	Output		receiver section is configured as a master, and a	
	., 7		Schmitt-trigger input if configured as a slave.	

② SAI Transmitter Section

Table 1-10 Serial Audio Interface (SAI) Transmitter signals

Signal Name	Signal Type	State during Reset	Signal Description
SDO0	Output	Driven	Serial Data Output 0 (SDO0) - SDO0 is the serial output
		High	for transmitter 0.
SD01	Output	Driven	Serial Data Output 1 (SDO1) - SDO1 is the serial output
		High	for transmitter 1.
SDO2	Output	Driven	Serial Data Output 2 (SDO2) - SDO2 is the serial output
		High	for transmitter 2.
SCKT	Input or	Tri-stated	Serial Clock Transmit (SCKT) - This signal provides the
	Output		clock for the SAI.
WST	Input or	Tri-stated	Word Select Transmit (WST) - WST is an output if the
	Output		transmit section is programmed as a master, and a
			Schmitt-trigger input if it is programmed as a slave.

☞ GENERAL PURPOSE I/O

Table 1-11 General Purpose I/O (GPIO) Signals

Signal Name	Signal Type	State during Reset	Signal Description
GPIO0-	Standard	Disconnected	GPIO lines can be used for control and handshake
GPIO3	Output,		functions between the DSP and external circuitry.
	Open-drain		
	Output, or		
	Input		

☞ ON-CHIP EMULATION (OnCETM) PORT Table 1-12 On-Chip Emulation Port Signals

Signal Name	Signal Type	State during Reset	Signal Description
DSI	Input	Output,	Debug Serial Input (DSI) - The DSI signal is the
		Driven Low	signal through which serial data or commands
			are provided to the OnCE port controller.
OS0	Output		Operating Status 0 (OS0) - When the DSP is not
			in the Debug mode, the OS0 signal provides
			information about the DSP status if it is an output
			and used in conjunction with the OS1 signal.
DSCK	Input	Output,	Debug Serial Clock (DSCK) - The DSCK/OS1
		Driven Low	signal, when an input, is the signal through which
			the serial clock is supplied to the OnCE port.
0S1	Output		Operating Status 1 (OS1) - If the OS1 signal is an
			output and used in conjunction with the OS0
			signal, it provides information about the DSP
			status when the DSP is not in the Debug mode.
DSO	Output	Driven High	Debug Serial Output (DSO) - The DSO line
			provides the data contained in one of the OnCE
			port controller registers as specified by the last
,			command received from the command controller.
DR	Input	Input	Debug Request (DR) - The debug request input
			provides a means of entering the Debug mode of
			operation.

NOTES

ALIGNMENT PROCEDURES

TUNER

1. Equipment Required

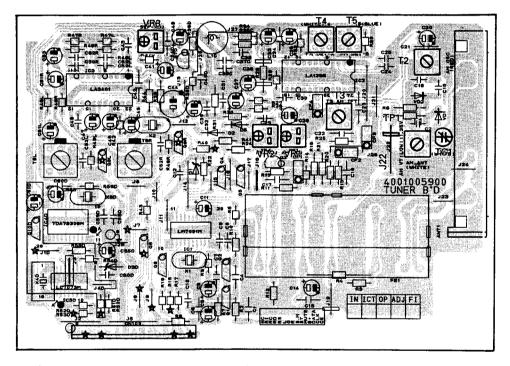
- AM Standard Signal Generator (AM SSG)
- Oscilloscope
- AC Voltmeter
- FM Standard Signal Generator (FM SSG)
- Stereo Modulator

- Audio Generator
- Distortion Meter
- DC Voltmeter
- Frequency Counter

Note: Disconnect external FM antenna prior to alignment.

2. Alignment

2-1. Alignment and Test Point



2-2. AM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator modulation: 30 %
- RF signal frequency: 400 Hz
- Switch: Press the BAND button to AM

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjustfor					
1	Tuning Voltage	520kHz (522kHz)	520kHz 1) (522kHz)	DC Voltmeter to J22 (TP1)	T2 AM OSC(R)	DC 1.5V±02V					
2	USABLE sensitivity	600kHz (594kHz)	600kHz 1) (594kHz)	AC voltmeter and oscilloscope to	T 1 MW ANT(W)	Maximize audio output					
		1400kHz (1404kHz)	1400kHz 2) (1404kHz)	speaker terminal of L or R channel	TC1						
	* Feed signal should be fed to loop antenna through the test loop antenna 60 cm distant from the appliance. * Repeat the step 1) and 2) until no further improvement occurs.										

3	IF	1000kHz (999kHz)	1000kHz (999kHz)	Ac voltmeter and oscilloscope to speaker terminal of L or R channel	T3 AM IFT	Maximize audio output
4	Ťuned Level	1000kHz(999kHz) 800 <i>µ</i> V/m	1000kHz (999kHz)		VR1	"Tuned" flag in the FL display light on

3-3. FM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator deviation : USA/Canada/Korea : 75kHz, Europe : 40kHz
- RF signal frequency: 1 kHz
- Switch: Press the BAND button to FM and the FM MODE button to MONO

Step	Subject	Subject Signal Set Subject Generator Frequency Frequency Setting		Equipment Connection	Adjustment Point	Adjust for				
1	Tuning Band Width	98.1MHz (98MHz)	98.1MHz (98MHz)	DC Voltmeter to R26(PCB1)	T4	Zero reading on DC Voltmeter				
2	THD	98.1MHz (98MHz)	98.1MHz (98MHz)	Distortion meter to TAPE OUT jack of L or R channel	T5	Minimize distortion				
3	Tuned Level	98.1MHz(98MHz) SSG output level: 10 ///m	98.1MHz (98MHz)		VR2	"Tuned" flag in the FL display light on				

3-4. MPX Alignment

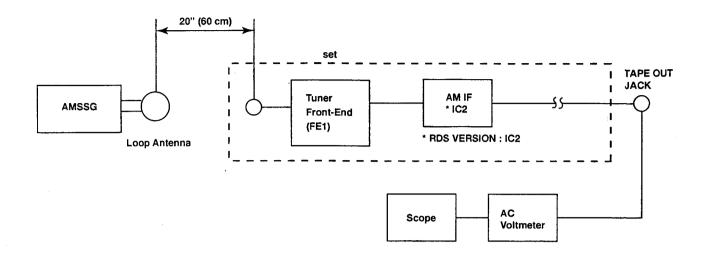
- Signal generator frequency: 98 MHz
- Signal generator deviation : USA : 75kHz, Europe : 40kHz
- RF signal frequency: 1 kHz
- Signal generator output level: 1000 µV/m
- Connect signal generator to FM antenna terminal through FM dummy antenna (75Ω)
- Switch: Press the BAND button to FM and the FM MODE button to STEREO

Step	Subject	19kHz Modulation Level	Set Equipment Adjustment Setting Connection Point			Adjust for	
1	Separation $R \rightarrow L$	8% Modulation	Pilot on	AC voltmeter to speaker terminal of R channel	VR3	Set AC voltmeter to 0 dB	
				AC voltmeter to speaker terminal of L channel		AC voltmeter reading should be at least 40 dB below	
2	Separation L → R	8% Modulation	Pilot on	AC voltmeter to speaker terminal of L channel	VR3	Set AC voltmeter to 0 dB	
				AC voltmeter to speaker terminal of R channel		AC voltmeter reading should be at least 40 dB below	

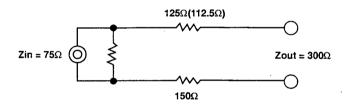
If you could not obtain -40 dB readings in steps 1 and 2, readjust VR3 until you obtain -40 dB readings. Nominal is -45 dB. (Europe: Nominal -42 dB, Limit -37 dB)

4. Equipment Connection

4-1. AM Alignment Connection

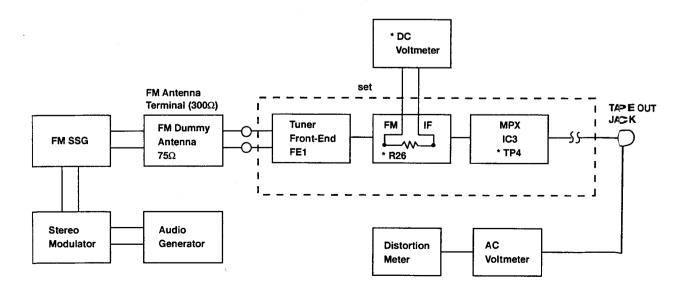


4-2. FM Dummy Antenna



FM Dummy Antenna to 300Ω Antenna terminal of system.

4-3. FM RF/IF and MPX Alignment Connection



TROUBLESHOOTING

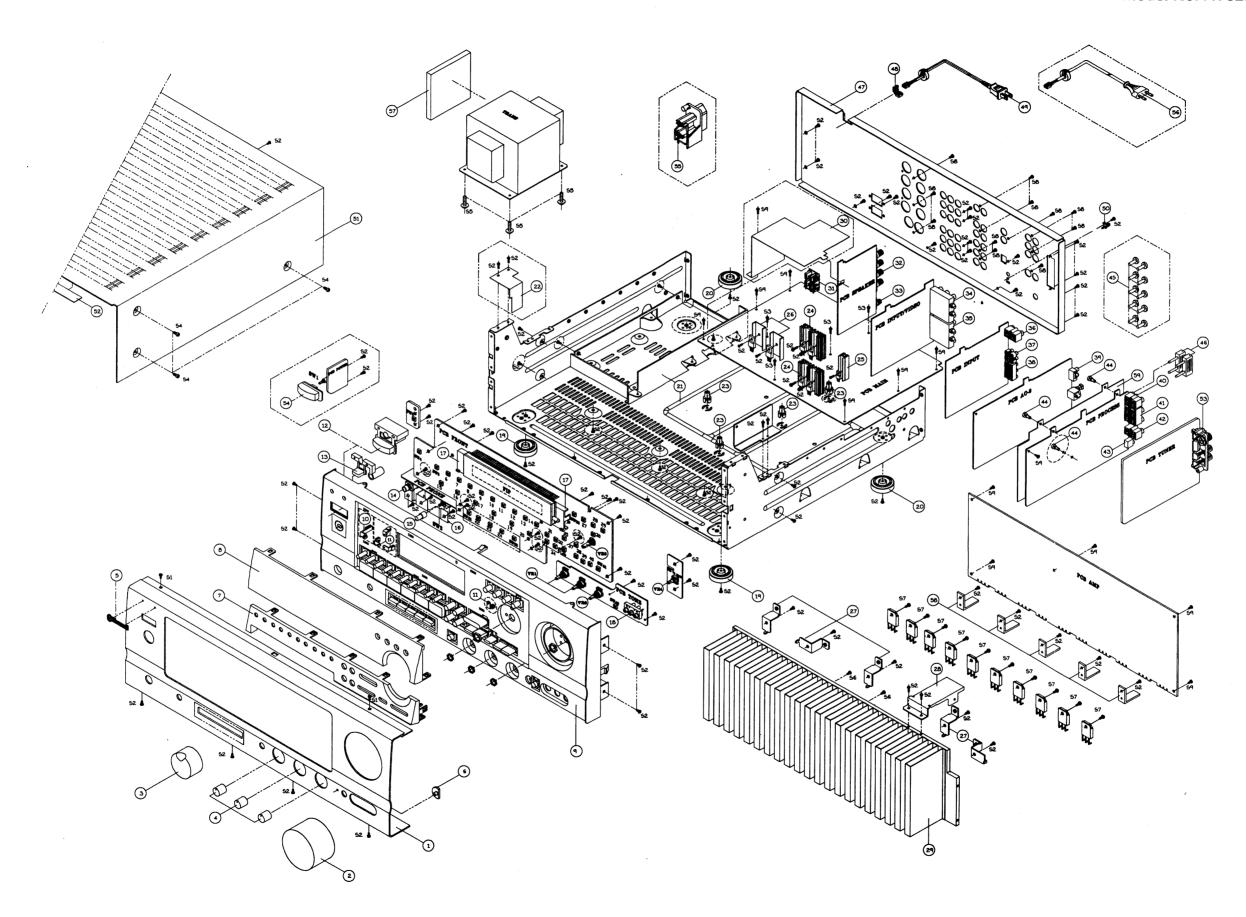
Symptom	Cause and Remedy
Receiver inoperative.	A) Faulty AC power cord.
(FL indicator does not light.)	Replace.
	B) Defective the power switch.
	Replace.
	C) Broken wire in the power transformer.
	Replace.
	D) Blown fuse.
	Replace the fuse.
Fuse blows when power is turned on.	A) Defective power transformer.
·	Replace.
	B) Short on the primary or secondary of the transformer circuitry.
	Repair the short.
	C) Damaged rectifier D105-D112 or damaged transistor
	Q215L/R/C/SL, Q216L/R/C/SL.
	D) Short circuit in the amplifier circuit.
	Repair the shorted component(s) in the amplifier circuit.
Power indicator lights but no sound from	A) Defective in transistor Q215L/R, Q216L/R on the AMP302 Board.
both channels.	B) Pulled out of correct speaker switch.
One channel does not work when volume	A) Defective in transistor Q215L/R or Q216L/R on the AMP302 Board.
is at maximum with a test signal applied to	Replace the defect.
the center terminal of volume control of the	B) Break in copper foil of printed circuit board.
dead channels.	Repair the defect.
	C) Short in speaker output terminal.
	Repair or replace.
Speaker works normally but headphones	A) Headphone plug does not match with jack.
inoperative.	Replace the jack.
·	B) Defective resistor R701L/R.
	Replace.
FM inoperative	A) Defective front-end (FE).
•	Replace.
	B) Defective FM switch.
	Replace the switch.
	C) Defective transistor Q3 and ICS (IC2,IC3).
	Replace the defective transistor or IC(s).
	D) Defective coil T4, T5.
	Replace the coil(s).
	E) Defective lead-in.
	Repair or replace the lead-in.
	F) Ceramic filters CF1, CF3 defective.
	Replace the defective ceramic filter(s).
Poor multiplex separation.	A) Improper adjustment.
	Readjust VR3.
	B) IC3 defective.
	Replace.
	C) Variable resistor VR3 defective.
	Replace the variable resistor.
FM volume is insufficient.	A) it volume from both L and R channels is not loug enough;
FM volume is insufficient.	A) If volume from both L and R channels is not loud enough: Front end section defective.
FM volume is insufficient.	<u> </u>

Symptom	Cause and Remedy
STEREO indicator does not light.	A) Defective indicator in FL.
	Replace.
	B) Improper adjustment of VR2 of tuner board.
	Make readjustment.
	C) Defective IC2.
	Replace the defective component.
FM Mono has no effect.	A) Defective FM MODE switch.
	Replace.
AM inoperative.	A) Damaged IC2 of tuner Board.
	Replace.
	B) Defective T1, T2, T3 or CF4 of Tuner Board.
	Replace the defective component(s).
•	D) Defective varicap diodes VD1 or VD2.
	Replace varicap diods(s).
	E) Damaged AM loop antenna.
	Repair or replace.
Bass control has no effect.	A) Variable resistor BASS defective.
	Replace.
Treble control has no effect.	A) Variable resistor TREBLE defective.
Auto tune inoperative. (UP/DOWN)	A) Poor contact in Up/Down key.
	Repair or replace.
	B) Defective IC301.
	Replace.
	C) Defective tuner Circuit components.
	Replace.
	D) In case of FM only, improper adjustment of FM front-end.
	Readjust.
Manual tune inoperative. (UP/DOWN)	A) Poor contact in Up/Down key.
(AM or FM)	B) Defective IC301.
	Replace.
Memory setting inoperative.	A) Poor contact in memory keys 1-10.
	Replace the defective component.
	B) Defective IC301.
	Replace the defective component.
FL inoperative.	A) FL defective.
	Replace.
•	B) Defective IC301.
	Replace.
	C) Defective X-TAL 301.
	Replace.
Noisy volume control.	A) Defective volume.
	Replace.
Remote Control Unit inoperative.	A) Weak battery.
	Replace.
	B) Defective.
	Replace.
	C) Defective IC301 (FRONT Board)
	Replace.

MECHANICAL PARTS LIST

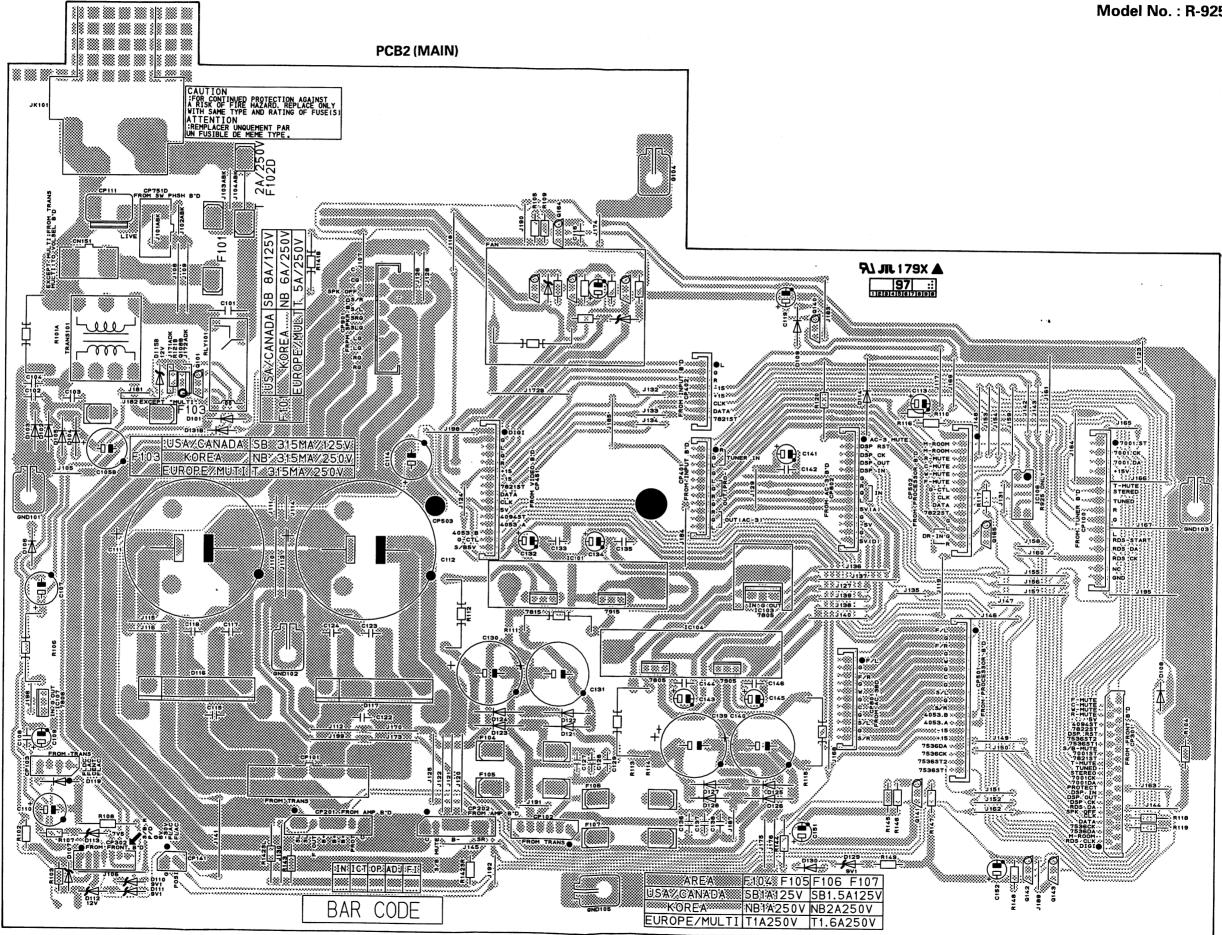
^{*}Parts without Parts No are not supplied.
*Parts with blank vertion are available in common.

	Desciption	Part No.	Q'tv	Vertion	Ref.No.	Desciption	Part No.	Q'tv	Vertion
	Packaging Materrials				36	Jack RCA(2P)	G601200440020		
	Box Carton	6017040990191	1	K	37	Jack RCA(4P)	G60240045003A		
	Box Carton	6017040990190	1	A,D,RDS	38	Jack RCA(6P)	G603600920030		
	Cushion Poly	6230042794010	1	,,_,,,_	39	Jack RCA(2P)	G601200099020		
	Film Soft PE	6320040052010	1		40	Jack RCA(2P)	G601200440020		
	Poly Bag	6330040092010	1		41	Jack RCA(4P)	G602400450050		
	1 dy bag				42	Jack RCA(2P)	G601200440020		
	Accessories				43	Jack Multi Room	G402042070000		Α
	Antenna Wire (FM)	E605010010000	1		44	Snap rivet	1560040036010		•
	Antenna AM Loop Stand Strip Wire	E601010000000	1		45	Bushing Terminal	2410040270010		D.RDS
	Ass'y Commander	8300040640020	•	K	46	Jumper Plug	L063040750000		0,1100
	Ass'y Commander	8300040640010	1	A	47	Chassis Back	3207053396030		к
	Ass'y Commander	8300040520040	1	D,RDS	(47)	Chassis Back	3207053396010	1	A
	Battery 1.5 V AA(R6M)	G670001R50010	2	D,RDS	(47)	Chassis Back	3207053396020	1	D
	Manual Instruction	5707046780010	1	K	(47)	Chassis Back	3207053396040		RDS
	Manual Instruction	5707046690010	1	A	48	Stopper Cord	4380040162010		1100
	Manual Instruction	5707046700010	1	D.RDS	49	AC Power Cord	L061040050010		Α
		5727041570010	1	K	50	Terminal GND	3790000090000	1	^
	Warranty Card	5727040060010	1	A	51	Cover Top	3000045396010		
	Warranty Card	5727041620020	1	D,RDS	52	•		1	
	Warranty Card	3121041020020	'	פטא,ט	52 53	Sponge ANT Terminal	4050043525010 G590040470000	1	ΔV
	Cohinet & Chapair					ANT Terminal		1	A,K
	Cabinet & Chassis	2067046209040	1	к	(53) 54	Button Power	G59004046000A	1	D,RDS D,RDS
	Panel Front	3067046398040					509005399101A		
	Panel Front	3067046248010	1	A	55	AC Outlet	G435040110000	1	D,RDS
` '	Panel Front	3067046248030	1	D	(55)	AC Outlet	G435000160010	1	K
٠,	Panel Front	3067046248020	1	RDS	56	AC Power Cord	L061040210010	1	K
	Knob Main	5087041501010	1		(56)	AC Power Cord	L061040090010	1	D,RDS
	Knob Encoder	5087040778010	1		(56)	AC Power Cord	L061000390060	1	RICHER
	Knob Rotary	5097050641010	3		57	Rubber Sponge	4050042695010	1	
	Badge, Sherwood Newcastle	5637040591010	1		58	Bracket Heat Sink	4010057166010	5	
	LED Guide	4350041551010	1		59	Shield Plate	3070046716010	1	
	Decoration Cap	5127040931050	1	K		11			
	Decoration Cap	5127040931030	1	Α		Hardware Kit		_	
	Decoration Cap	5127040931040	1	D,RDS	S1	Screw, #2FTC 3×8B	B010530083F10	2	
	Window FL	5077040063030	1	A,K	S2	Screw, #B BTT 3×8B	B020030083B10		
	Window FL	5077040063040	1	D,RDS	S3	Screw, #B WPTT 3×18Y	B020030181X10		
	Body Front	3417040721050	1	K	S4	Screw, BSAM 4×8B	B020940083B10	6	
	Body Front	3417040721030	1	A	S5	Screw, WSAM 4×8B	B020940083W10	4	
	Body Front	3417040721040	1	D	S6	Screw, GUIDE 3 × 16Y	1507041456010	2	
(9)	Body Front	3417040731020	1	RDS	S7	Screw, HEAT SINK	1507041146010		
	Indicator Stanby	5160040643010	1		S8	Screw, GND	1507040996010		
	Indicator	5070044421010	4		S9	Screw, #B WPTT 3×6Y	B020030061W10	12	
	Button Power	5090059071010	1						
13	Button Stanby	5090059231010	1			Miscellaneous			
14	Jack Phone(G)	G402040161330	1		SW1	Switch Power	G000041610000	1	K,D,RDS
15	Button Push	5090066821010	1		SW2	Switch Push	G000041170000	1	
16	Bracket Jack/SW	4010043616010	1		SW3	Switch Tact	G180040500010	1	Α
17	Holder FL	4320040841010	2		SW4-20	Switch Tact	G180040500010	17	
	Jack RCA	G606040300000	1		SW21-25	Switch Tact	G180040500010	5	RDS
19	Foot AL	4007041021010	2	A,K	SW26-42		G180040500010	17	
	Foot AL	4007040201010	2	D,RDS	VR1	VR Treble/Bass	C455121402300	2	
20	Foot PL	4000040201010	2		VR2	VR Balance	C455111402000	1	
21	Chassis Ass'y	3208056416200	1		VR3	VR Encoder	C450042030010	1	
22	Cover Power	1240044012010	1	DP,RDSP	VR4	VR Main	C49004106001A	1	
23	Knob Spacer	4300040561010	4			•			
24	Heat Sink Reg TR	2120043538020	2						
25	Heat Sink Reg TR	2120044358010	1						
26	Heat Sink Reg TR	2120044808010	2						
27	Bracket H/Sink	4010056906010	5						
28	Bracket H/Sink	4010056896010	1						
		2120044988010	1						
29	H/Sink Power								
29 30	Cover Fuse	1240044022010	1	DP,RDSP					
30		1240044022010 G435040070000	1	DP,RDSP A					
30	Cover Fuse								
30 31	Cover Fuse AC Outlet	G435040070000	1						
30 31 32	Cover Fuse AC Outlet Terminal Speaker(8P)	G435040070000 G614081036000	1 1						

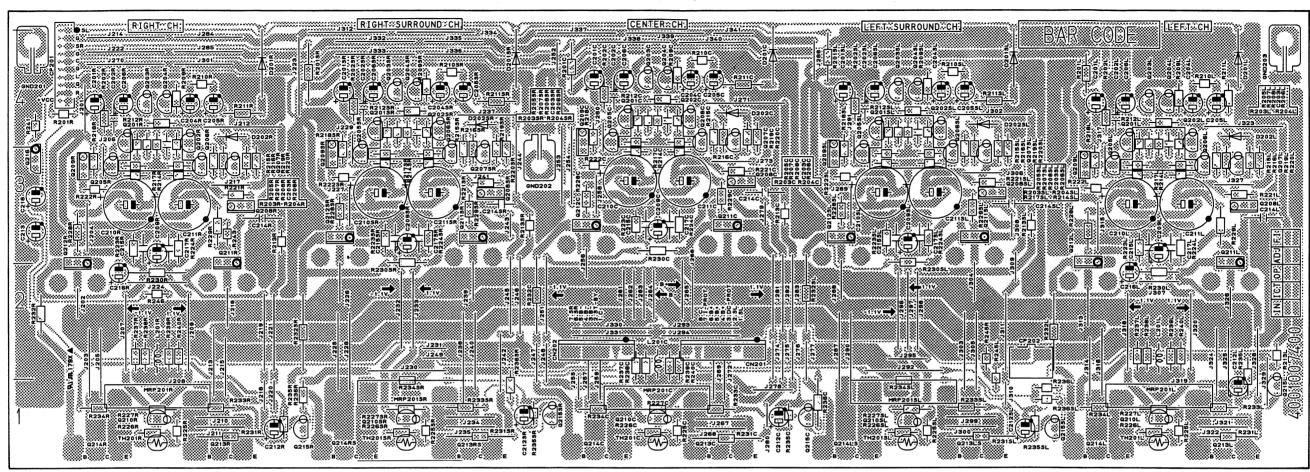


PRINTED CIRCUIT BOARDS

Model No.: R-925R/R-925RDS

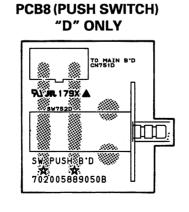


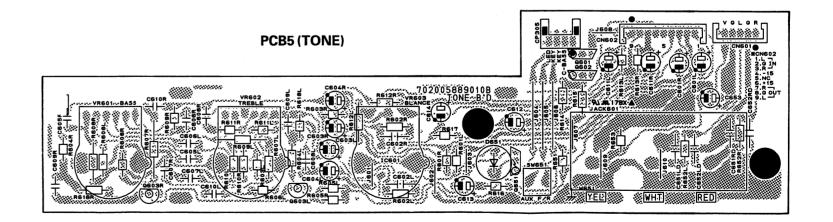
PCB3 (AMP)



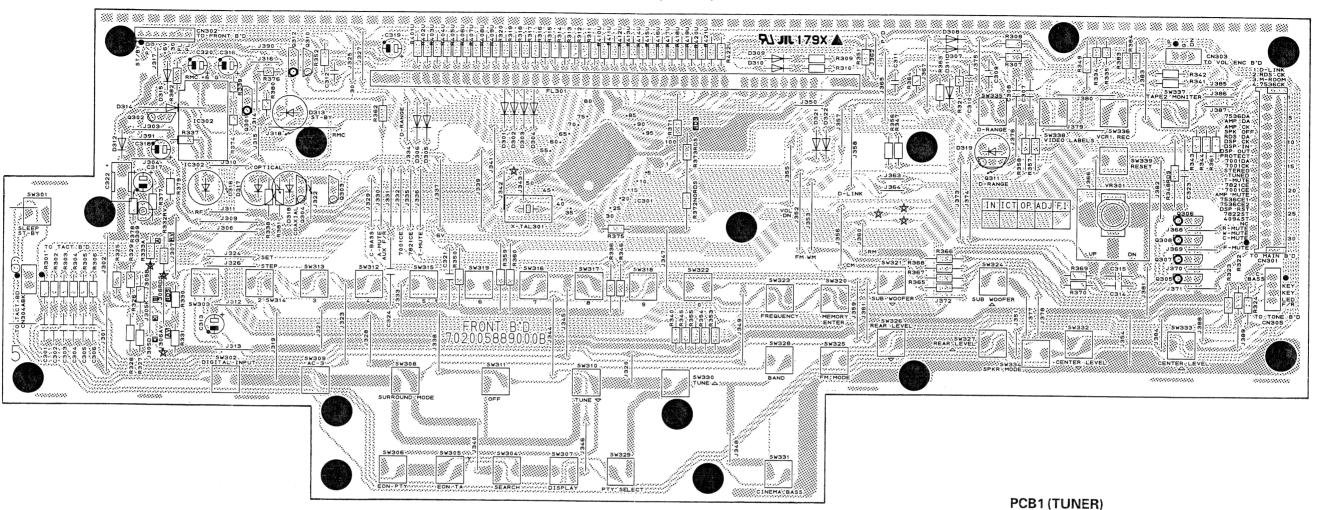
OBO BOOK SENSOR BO

PCB6 (HP/SPK SWITCH)

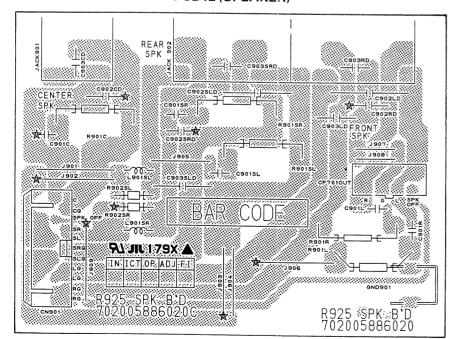




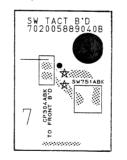
PCB4 (FRONT) Model No.: R-925R/R-925RDS



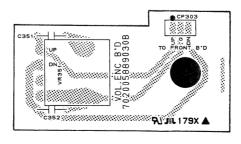
PCB12 (SPEAKER)

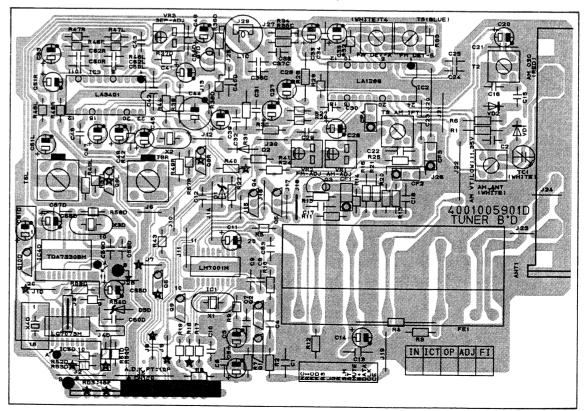


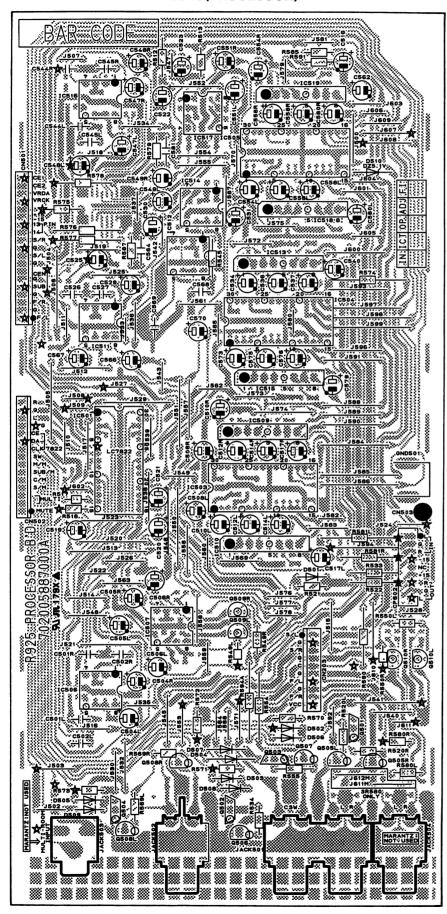
PCB7 (TACT SWITCH)

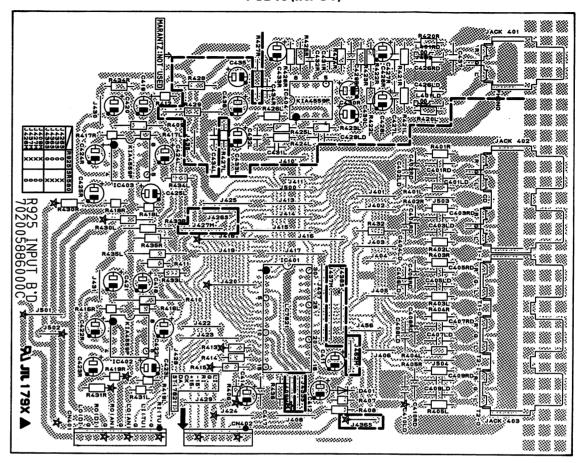


PCB9 (ENCODER)

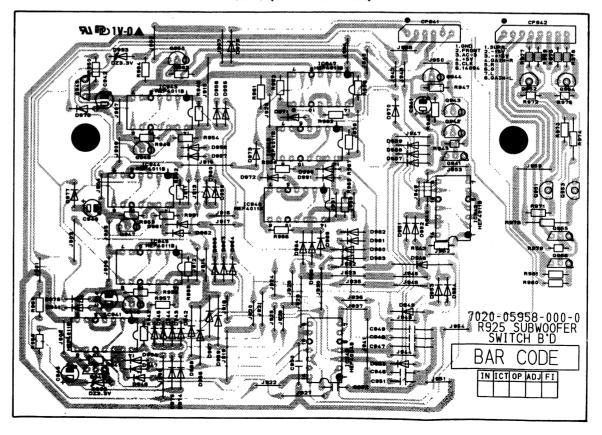








PCB15 (SUB WOOFER)

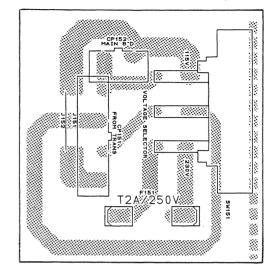


PCB14 (AC-3)

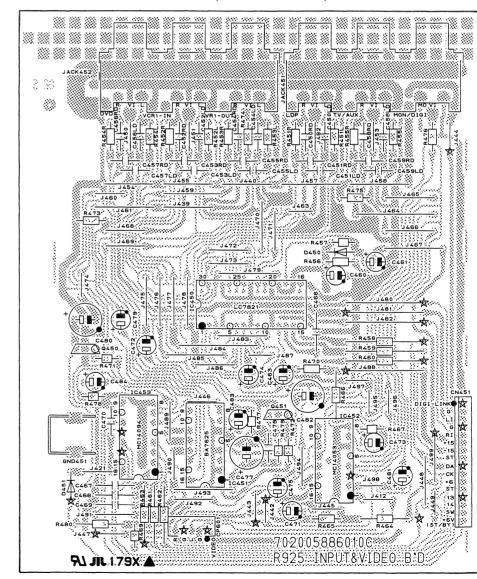
-TOP VIEW-

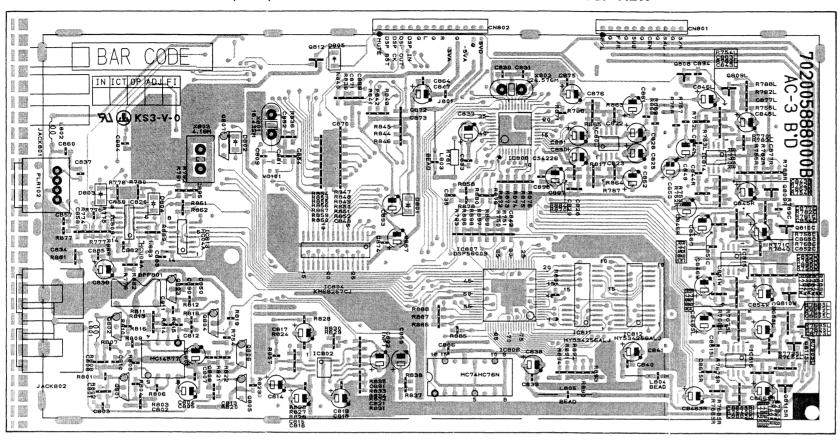
Model No.: R-925R/R-925RDS





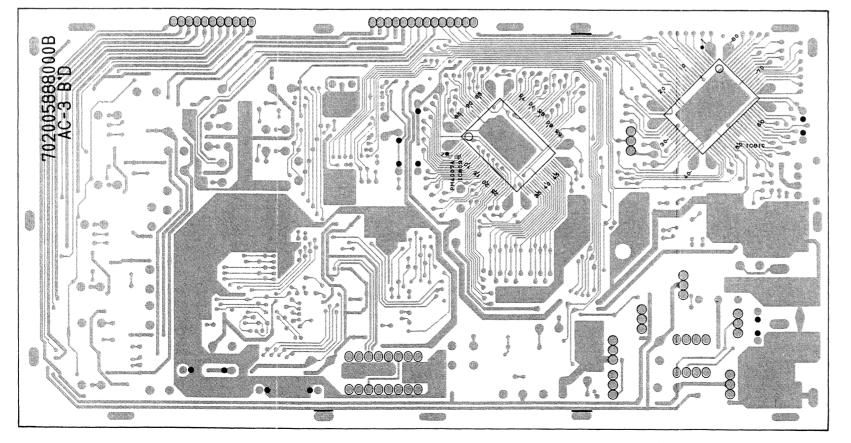
PCB11 (INPUT & VIDEO)





PCB14 (AC-3)

-BOTTOM VIEW-



ELECTRICAL PARTS LIST

*Parts without Parts No are not supplied.

*Parts with blank version are available in comme

"Parts with blank Ref.No.	k version are available in commo Description	on.		Part No.	Q'ty Version	Ref.No.	Description			Part No. (Q'ty Version	Ref.No.	Description			Part No.	Q'ty Version
PCB1	ASSEMBLY P.C.BO	ARD TUNER		7028040887800	K	R5	Metal Film	470 ohm	1/5 W	J C06004716P520	1	C20	Elect GE	10 uF	35 V	M D040100085100	
PCB1	ASSEMBLY P.C.BO			7028040889200		R6	Carbon Film			J C00001046P520	1 .	C21/22	Ceramic H/K Axial	0.022 uF	25 V	D005223574530	
TOO!		AND IUNER		1020040003200	Α	R7	Carbon Film	10 kohm			1	C23	Ceramic H/K Axial	10000 pF	16 V	D005223574530	_
	Capacitors					R8	Metal Film	270 ohm		J C06002716P520	1	C24/25	Ceramic H/K Disc	0.022 uF		Z D004223097060	•
C1	Ceramic H/K Axial	0.022 uF	25 V	D005223574530	1	R9	Metal Film	560 ohm		J C06005616P520	1	C26	Elect GE	4.7 uF	50 V		
C2	Ceramic H/K Disc	0.047 uF		Z D004473097060		R10	Metal Film	1 kohm		J C06001026P520	1	C27	Elect GE	3.3 uF		M D0403R3087100	
C3	Elect GE	3.3 uF		M D0403R3087100		R11	Metal Film	180 ohm		J C06001816P520	i	C28	Elect GE	4.7 uF		M D0404R7087100	
C4	Ceramic H/K Axial	10000 pF	16 V	D005103773530		R12	Metal Film	560 ohm		J C06005616P520	1	C29	Ceramic H/K Disc	0.022 uF		Z D004223097060	
C5 .	Elect GE	47 uF		M D040470083100		R13	Metal Film	3.3 kohm		J C06003326P520	1	C30	Film Polyester	0.022 uF	100V	J D02022306C060	•
C6	Ceramic H/K Axial	0.022 uF	25 V	D005223574530	1	R14	Metal Film	560 ohm		J C06005616P520	1	C31	Film Polyester	0.0033 uF	100V		
C7	Ceramic H/K Axial	10000 pF	16 V	D005103773530	1	R15	Metal Film	470 ohm	1/5 W	J C06004716P520	1	C32	Film Polyester	0.039 uF	100V		
C8/9	Ceramic Disc	18 pF	50 V	J D000180167070	2	R16	Metal Film	100 ohm	1/5 W		1	C33	Elect GE	1 uF	50 V		
C10 C11	Ceramic H/K Disc	100 pF	50 V	J D004101067060	1	R17-19	Metal Film	1 kohm	1/5 W	J C06001026P520	3	C34	Ceramic H/K Axial	0.022 uF	25 V	D005223574530	
C12	Elect GE Ceramic H/K Disc	47 uF 0.022 uF		M D040470083100	1	R20	Metal Film	330 ohm	1/5 W	J C06003316P520	1	C35	Elect GE	100 uF	16 V	M D040101083100	
C13	Ceramic H/K Axial	0.022 uF	25 V	Z D004223097060 D005223574530	1	R21	Metal Film	270 ohm	1/5 W	J C06002716P520	1	C36	Ceramic H/K Disc	330 pF	50 V	J D004331067060	1
C14	Elect GE	100 uF		M D040101083100	1	R22	Metal Film	470 ohm	1/5 W	J C06004716P520	1	C37C	Ceramic Disc	82 pF	50 V	J D000820067060	1
C15	Film Stylor	470 pF	50 V	J D022471067050	1	R24	Metal Film	4.7 kohm			1	C38C	Ceramic H/K Disc	100 pF	50 V	J D004101067060	1
C16	Ceramic Disc	15 pF	50 V	J D000150167070	1	R25	Carbon Film	68 kohm		J C00006836P520	1	C39	Elect GE	10 uF	35 V	M D040100085100	1
C17/18	Ceramic H/K Axial	0.022 uF	25 V	D005223574530	2	R26	Carbon Film	18 kohm		J C00001836P520	1	C40D	Ceramic H/K Axial	0.022 uF	25 V	D005223574530	
C20	Elect GE	10 uF		M D040100085100		R27	Carbon Film	10 kohm			1	C41	Elect GE	4.7 uF		M D0404R7087100	
C21/22	Ceramic H/K Axial	0.022 uF	25 V	D005223574530		R28 R29	Carbon Film			J C00002236P520	1	C42	Ceramic H/K Axial	0.047 uF	50 V	D005473097530	1
C23	Ceramic H/K Axial	10000 pF	16 V	D005103773530	1	R29 R30	Metal Film	22 ohm		J C06002206P520	1	C43	Ceramic H/K Disc	680 pF	50 V		1
C24/25	Ceramic H/K Disc	0.022 uF	50 V	Z D004223097060	2		Metal Film			J C06004726P520	1	C44	Elect GE	100 uF		M D040101083100	
C26	Elect GE	4.7 uF		M D0404R7087100		R31 R32	Carbon Film Carbon Film	10 kohm		J C00001036P520	1	C45	Elect GE	1 uF		M D040010087100	
C27	Elect GE	3.3 uF		M D0403R3087100	1	R32 R33	Metal Film			J C00005626P520	1	C46	Elect GE	0.22 uF		M D040R22087100	
C28	Elect GE	4.7 uF		M D0404R7087100	1	R34	Metal Film	3.3 KONM 100 ohm		J C06003326P520 J C06001016P520	1	C47 C48	Elect GE Ceramic H/K Disc	1 uF		M D040010087100	1
C29	Ceramic H/K Disc	0.022 uF	50 V	Z D004223097060	1	R39	Metal Film	100 ohm		J C06001016P520	1	C48	Elect GE	0.022 uF		Z D004223097060	1
C30	Film Polyester	0.022 uF	100V	J D02022306C060	1	R40	Carbon Film			J C00004736P520	1	C50L	Ceramic H/K Disc	10 uF	35 V 50 V	M D040100085100	1
C31	Film Polyester	0.0033 uF	100V	J D02033206C060	1 .	R41	Carbon Film	22 kohm		J C00004736P520	1	C50R	Ceramic H/K Disc	220 pF 220 pF	50 V	J D004221067060	1
C32	Film Polyester	0.039 uF	100V	J D02039306C060	1	R42	Metal Film			J C06003326P520	1	C51L/R	Elect GE	220 pF 10 uF		J D004221067060 M D040100085100	1
C33	Elect GE	1 uF		M D040010087100	1	R43	Carbon Film	22 kohm		C00002236P520	1	C53	Elect GE	10 uF		M D040100085100	
C34	Ceramic H/K Axial	0.022 uF	25 V	D005223574530	1	R44	Carbon Film			C00004736P520	1	C54D	Ceramic H/K Axial	270 pF	50 V	D005271077530	1
C35	Elect GE	100 uF		M D040101083100	1	R46L/R	Carbon Film	120 kohm		C00001246P520	2	C55D	Elect GE	47 uF		M D040470083100	1
C36	Ceramic H/K Disc	330 pF		J D004331067060	1	R47L/R	Carbon Film	180 kohm	1/5 W .	C00001846P520	2	C56D	Elect GE	10 uF		M D040100085100	
C39 C41	Elect GE Elect GE	10 uF 4.7 uF		M D040100085100	1	R48L/R	Metal Film	2.7 kohm	1/5 W J	C06002726P520	2	C57D	Ceramic H/K Axial	0.1 uF	50 V	D005104097530	i
C42	Ceramic H/K Axial	4.7 uF 0.047 uF	50 V	M D0404R7087100 D005473097530		R49L/R	Metal Film	3.3 kohm	1/5 W	C06003326P520	2	C58D/59D	Ceramic H/K Disc	27 pF	50 V	J D004270067060	2
C43	Ceramic H/K Disc	680 pF		J D004681067060		R57L/R	Metal Film	1.5 kohm	1/5 W J	C06001526P520	2	C60D	Ceramic H/K Disc	0.1 uF	50 V	Z D004104097060	1
C44	Elect GE	100 uF		M D040101083100	1							C62L/R	Ceramic Disc	10 pF	50 V	J D000100067060	2
C45	Elect GE	1 uF		M D040010087100	1		Coils										
C46	Elect GE	0.22 uF		M D040R22087100	1	T1	AM-Antenna			D304564300000	1		Ceramic Filters				
C47	Elect GE	1 uF		M D040010087100	1	T2	AM-OSC			D940111027000	1	CF1	10M7S3GH			E430107000150	1
C48	Ceramic H/K Disc	0.022 uF		Z D004223097060	1	T3	AM-IFT P-7SB			D950010050000	1	CF3	10M7S3GH			E430107000150	1
C49	Elect GE	10 uF	35 V N	M D040100085100	1	T4	FM-DET-A			D970010040000	1	CF4	CFM2-450BL			E431450000120	1
C50L/R	Ceramic H/K Disc	560 pF	50 V .	J D004561067060	2	T5	FM-DET-B			D970010060000	1						
C51L/R	Elect GE	10 uF	35 V N	M D040100085100	2	T6L/R	MPX(19/38kHz) BLK			E401500100000	2		Diodes				
C53	Elect GE	10 uF	35 V N	M D040100085100	1							D1	UZ 5.1 BSB, Zener			K06005R114520	1
C62L/R	Ceramic Disc	68 pF	50 V 、	J D000680067060	2		Semi Fixed Vareab	le Resistors				D2	1N4148M, Switching			K000414801520	1
						VR1	5K(B)-H			C541502115000	1	D3D	UZ 5.1 BSB, Zener			K06005R114520	1
	Ceramic Filters					VR2	50K(B)-H			C541503115000	1	VD1/2	SVC321SPA-C			K080032100520	2
CF1	SFE10.7MA8-A-TF21			E430107000140	1	VR3	200K(B)-H			C541204115000	1						
CF3	SFE10.7MA8-A-TF21			E430107000140									Integrated Circuits				
CF4	CFM2-450BL			E431450000120	1		Miscellaneous					IC1	LM7001M			J124700100010	1
						CN100	PLUG 10P, 35238-101			L12252419100A		IC2	LA1266G			J124126600010	1
	Diodes					FE1	Tuner FM, FTA4-556H			E900455600100	1	IC3	LA3401			J124340100010	
D1	UZ 5.1 BSB, Zener			K06005R114520		TC1	Trimmer Ceramic, 10 p	OF .		D110100901100	1	IC4D	TDA7330BD			J020733000010	1
D2	1N4148M, Switching			K000414801520		X1 X2	7.2 MHz			E800720000080	1		.				
VD1/VD2	SVC321SPA-C			K080032100520	2	^4	Resonator, CSB456F			E830456000050	1		Coils				
						PCB1	ASSEMBLY P.C.BO	APN THMED		7028040890600	D	L1C	Inductor, 20.8 MH			D330208001120	1
	Integrated Circuits									Control Address of the Control of th	Control of the Contro	T1	AM-Antenna			D304564300000	1
IC1	LM7001M			J124700100010		PCB1	ASSEMBLY P.C.BC	ARU IUNER		7028040892000	RDS	T2	AM-OSC			D940111027000	1
IC2	LA1266G			J124126600010			Capacitors					T3	AM-IFT P-7SB			D950010050000	1
IC3	LA3401			J124340100010	1	C1	Ceramic H/K Axial	0.022 uF	25 V	D005223574530	1	T4	FM-DET-A			D970010040000	1
						C2	Ceramic H/K Disc	0.047 uF		D004473097060	1	T5 Tel/B	FM-DET-B				1
	Transistors					C3	Elect GE	3.3 uF		D0403R3087100	1	T6L/R	MPX(19/38kHz) BLK			E401500100000	2
Q1/Q2	2SC1740S, NPN		•	J5021740S0010	2	C4	Ceramic H/K Axial	10000 pF	16 V	D005103773530	1		Tuonointon				
Q3	KTC1923Y/KTC3194Y,			J5023194Y0050	1	C5 C6	Elect GE	47 uF		D040470083100	1	01/0	Transistors			.==	
Q4-Q6	KRA107M/DTA114YS, I	PNP		J601107M00050		C6 C7	Ceramic H/K Axial Ceramic H/K Axial	0.022 uF 10000 pF	25 V 16 V	D005223574530	1	Q1/2	2SC1740S, NPN	NDM		J5021740S0010	2
Q8L/R	DTC323TS, NPN	DAID		J602323TS0050		C8/9	Ceramic Disc	10000 pF 18 pF	50 V J	D005103773530 D000180167070	2	Q3 Q4-6	KTC1923Y/KTC3194Y,			J5023194Y0050	1
Q9	KRA107M/DTA114YS, I	PNP		J601107M00050	1	C10	Ceramic Disc Ceramic H/K Disc	18 pF 100 pF	50 V J	_	4	Q4-6 Q7D	KRA107M/DTA114YS, 2SC1740S, NPN	-NP		J601107M00050	
	.					C11	Elect GE	47 uF		D004101067060 D040470083100	1	Q8L/R	DTC323TS, NPN			J5021740S0010	
	Resistors					C12	Ceramic H/K Disc	0.022 uF		D044223097060	1	Q9	KRA107M/DTA114YS.	PND		J602323TS0050	
R1	Carbon Film			J C00001046P520		C13	Ceramic H/K Axial	0.022 uF	25 V	D004223574530	1			· ME		J601107M00050	1
R2	Carbon Film			J C00005626P520	1	C14	Elect GE	100 uF		D040101083100	1		Resistors				
R3	Carbon Film			J C00002236P520	1	C15	Film Stylor	470 pF		D022471067050	1	R1	Carbon Film	100 kohm	1/5 \A/	1 0000040405555	4
R4	Carbon Film	100 KONM	1/5 VV .	J C00001046P520	ı	C16	Ceramic Disc	15 pF		D000150167070	1	R2	Carbon Film			J C00001046P520 J C00005626P520	1
						C17/18	Ceramic H/K Axial	0.022 uF	25 V	D005223574530		R3	Carbon Film	22 kohm	1/5 \\	J C00005626P520	1
												•		LE NORTH		- 000002230F320	1

Ref.No.	Description			Part No. Q'ty Version	Ref.No.	Description				Q'ty Version	Ref.No.	Description		Part No. Q'ty	Version
R4	Carbon Film			C00001046P520 1	C130/131	Elect GE	2200 uF		M D040222085200	2	Q140	DTA114YS, NPN		J601114YS0050 1	
R5	Metal Film		1/5 W J		C132	Elect GE	1 uF		M D040010087100	1	Q141	BKTA1267, PNP		J5001267Y0050 1	
R6	Carbon Film			C00001046P520 1	C133	Ceramic H/K Disc	0.1 uF		Z D004104097060	1	Q142/143	2SC1740S, NPN		J5021740S0010 2	
R7	Carbon Film			C00001036P520 1	C134	Elect GE	1 uF		M D040010087100	1,	Q164	BKTC3199, NPN		J5023199Y0050 1	
R8	Metal Film			C06002716P520 1	C135	Ceramic H/K Disc	0.1 uF		Z D004104097060	1	Q165	DTC114YS, NPN		J6020114Y0050 1	
R9	Metal Film			C06005616P520 1	C136~138	Film Polyester	0.047 uF	100 V		3					
R10	Metal Film		1/5 W J		C139	Elect GE	10000 uF		M D040103083020	1		Resistors			
R11	Metal Film			C06001816P520 1	C140	Elect GE	2200 uF		M D040222083020	1	R101	Metal Film	3.3 Mohm 1/2 W	J C060033574530 1	
R12	Metal Film		I/5 W J		C141	Elect GE	1 uF		M D040010087100	1	R102	Metal Film	470 ohm 1/5 W	J C06004716P520 1	
R13	Metal Film			C06003326P520 1	C142	Ceramic H/K Disc	0.1 uF		Z D004104097060	1	R103	Carbon Film	10 kohm 1/5 W	J C00001036P520 1	
R14	Metal Film			C06005616P520 1	C143	Elect GE	1 uF		M D040010087100	1	R104	Carbon Film		J C00001056P520 1	
R15	Metal Film			C06004716P520 1	C144	Ceramic H/K Disc	0.1 uF	50 V	Z D004104097060	1	R105	Carbon Film		J C00001046P520 1	
R16	Metal Film			C06001016P520 1	C145	Elect GE	1 uF	50 V	M D040010087100	1	R106	Metal Film	10 ohm 2 W	J C060010066520 1	
R17/18	Metal Film			C06001026P520 2	C146	Ceramic H/K Disc	0.1 uF	50 V	Z D004104097060	1	R107	Carbon Film	15 kohm 1/5 W	J C00001536P520 1	
R20	Metal Film	330 ohm 1	1/5 W J	C06003316P520 1	C151	Elect GE	1 uF	50 V	M D040010087100	1	R108	Metal Film	330 ohm 1/5 W		
R21	Metal Film			C06002716P520 1	C152	Elect GE	470 uF	6.3 V	M D040471081100	1	R109	Carbon Film	1 Mohm 1/5 W		
R22	Metal Film			C06004716P520 1							R110	Carbon Film	100 kohm 1/5 W	J C00001046P520 1	
R24	Metal Film			C06004726P520 1		Connectors					R111/112	Metal Film	10 ohm 2 W	J C060010066520 2	
R25	Carbon Film	68 kohm 1.	/5 W J	C00006836P520 1	CN151	Wafer, 7.92mm, 2P			L104353280200	1 .	R113~115	Metal Film	1 ohm 2 W	J C060001066520 3	
R26	Carbon Film	47 kohm 1.	/5 W J	C00004736P520 1	CP100	B'D to B'D Plug, 2.5m	m. 15P		L102532911910	1	R116	Metal Film		J C06004716P520 1	
R27	Carbon Film	10 kohm 1.	/5 W J	C00001036P520 1	CP101	Wafer, 7.92mm, 4P	,		L104353280400	1	R117	Metal Film		J C06001026P520 1	
R28	Carbon Film	22 kohm 1.	/5 W J	C00002236P520 1	CP102	Wafer, 2.5mm, 6P			L102526706010	1	R118/119	Metal Film		J C06004716P520 2	
R29	Metal Film	22 ohm 1.	/5 W J	C06002206P520 1	CP103	Wafer, 2.5mm, 4P			L102526704010	1	R120	Metal Film		J C06004726P520 1	
R30	Metal Film	4.7 kohm 1.	/5 W J	C06004726P520 1	CP111	Wafer, 7.92mm, 2P			L108B2P300010	1	R142SL/SR	Carbon Film		J C00002236P520 2	
R31	Metal Film	2.7 kohm 1.	/5 W J	C06002726P520 1	* CP141	Wafer, 2.5mm, 2P			L102526702010		R143	Carbon Film		J C00002236P520 1	
R32	Carbon Film	5.6 kohm 1.	/5 W J	C00005626P520 1	CP201	Wafer, 2.5mm, 8P			L102526708010		R144	Metal Film		J C06004726P520 1	
R33	Metal Film	3.3 kohm 1.	/5 W J	C06003326P520 1	CP202	Wafer, 2.5mm, 7P			L102526707010	1	R145	Carbon Film		J C00001046P520 1	
R34	Metal Film			C06001016P520 1	CP301	FPC Plug, 1.25mm, 3	1P		L131520453100	1	R146	Carbon Film		J C00006836P520 1	
R35C	Metal Film	1.8 kohm 1.	/5 W J	C06001826P520 1	CP302	Wafer, 2.0mm, 7P			L101220070000	1	R147	Metal Film		J C06003326P520 1	
R36D	Carbon Film	47 kohm 1.	/5 W J	C00004736P520 1	CP401	B'D to B'D Plug, 2.0m	m 11P		L101353361110	1	R148	Metal Film		J C06001526P520 1	
R37D	Metal Film	22 ohm 1	/5 W J	C06002206P520 1	CP402	B'D to B'D Plug, 2.0m			L101353360810		R149	Metal Film		J C06001026P520 1	
R38D	Metal Film	1 kohm 1/	/5 W J	C06001026P520 1	CP451	B'D to B'D Plug, 2.0m			L101353361610	1	11110	Wictai i iiiii	1 KOIIII 1/5 VV	3 000001020F320 1	
R39	Metal Film	100 ohm 1/	/5 W J	C06001016P520 1	CP501	B'D to B'D Plug, 2.0m			L101353361910	1		Miscellaneous			
R40	Carbon Film	47 kohm 1/	/5 W J	C00004736P520 1	CP502	B'D to B'D Plug, 2.0m	•		L101353361510	1	DI V404		O	000040500040	
R41	Carbon Film	22 kohm 1/	/5 W J	C00002236P520 1	CP503	CNT Ass'y, 300mm,11			L033595840300	1	RLY101	SDT-SS-112DM/12VD		G680125020010 1	
R42	Metal Film	3.3 kohm 1/	/5 W J	C06003326P520 1	CP751D	Wafer, 7.92mm, 2P	1			1 D.RDS	TRANS101	Standby Trans, 120V/6		8200280960010 1 /	
R43	Carbon Film	22 kohm 1/	/5 W J	C00002236P520 1	CI 731D	CNT Ass'y, 2P				1 D,RDS		Standby Trans, 230V/5			D,RDS
R44	Carbon Film	47 kohm 1/	/5 W J	C00004736P520 1	CP801	B'D to B'D Plug, 2.0m	m 11D		L101353361110		DOMED TOAM	Standby Trans, 220V/6			K
R46L/R	Carbon Film	220 kohm 1/	/5 W J	C00002246P520 2	CP901	B'D to B'D Plug, 2.5m			L102534211110		POWER TRAN				Α
R47L/R	Carbon Film	270 kohm 1/	/5 W J	C00002746P520 2	CF301	B D (0 B D Flug, 2.5111	111, 111		L102334211110	1		Power Transformer, 23			D,RDS
R48L/R	Metal Film			C06002726P520 2		Diadaa					2000222	Power Transformer, 22		8200281016460 1	K
R49L/R	Metal Film			C06003326P520 2	5404 400	Diodes				_	POSISTOR	Posistor Assy, 180 2.5	P	F328380001830 1	
R50D	Metal Film			C06006816P520 1	D101~106	1N4003, Rectifier			K040400300520	6					
	Carbon Film			C00001036P520 2	D107	UZ4.3BSB, Zener			K06004R314520	1	PCB3	ASSEMBLY P.C.BO	ARD AMP	7028040887200 I	K
R56D	Carbon Film			C00002256P520 1	D108/109	1N4148M, Switching			K000414801520		PCB3	ASSEMBLY P.C.BO	ARD AMP	7028040888600	Α
R57L/R	Metal Film	1.5 kohm 1/	/5 W J	C06001526P520 2	D110/111	UZ9.1BSC, Zener			K06009R124520	2	PCB3	ASSEMBLY P.C.BO	ARD AMP	7028040890000 I	D
					D112	UZ12BSC, Zener			K060120024520	1	PCB3	ASSEMBLY P.C.BO			
	Semi Fixed Vareable	Resistors			D113	UZ7.5BSC, Zener			K06007R524520	1	EVEN		ARU AMF	7028040891400 I	RDS
VR1	5K(B)-H	. 100101010		C541502115000 1	D114	1N4148M, Switching			K000414801520	1		Capacitors	•		
VR2	50K(B)-H			C541503115000 1	D116/117	D5SBA60, Rectifier B	ridge		K047056000010		C201L/R/C	Elect GE	47 uF 16 V	M D040470083100 3	
	200K(B)-H			C541204115000 1	D119~128	1N4003, Rectifier			K040400300520		C201SL/SR	Elect GE		M D040470083100 2	
7113	2001(13)-11			C341204113000 1	D129	UZ9.1BSC, Zener			K06009R124520		C202L/R/C	Ceramic T.C Axial	100 pF 50 V	J D001101077530 3	
					D130	1N4148M, Switching			K000414801520	1	C202SL/SR	Ceramic H/K Axial	270 pF 50 V	J D005271077530 2	
	Miscellaneous										C203L/R/C	Not Used!			
	PLUG, 15P M.O			L112524191900 1		Fuses					C203SL/SR	Not Used!			
	Tuner FM, FTH4-460H			E900446000110 1	F101	Fuse, SB 8A, 125V			G650802121150	1 A	C204L/R/C	Elect GE	1 uF 50 V	M D040010087100 3	
	Trimmer Ceramic, 10 pF			D110100901100 1		Fuse, T 5A, 250V			G650502251160		C204SL/SR	Elect GE	1 uF 50 V	M D040010087100 2	
	7.2 MHz			E800720000080 1		Fuse, NB 6A, 250V			G650602251150		C205L/R/C	Elect GE		M D040220083100 3	
	Resonator, CSB456F			E830456000050 1	F102D	Fuse, T 2AL, 250V			G650202251160		C205SL/SR	Elect GE		M D040220083100 2	
X3D	4.332 MHz			E800433200060 1	F103	Fuse, SB 315mA, 125	5V		G650311121160		C206L/R/C	Elect GE		M D040221082100 3	
		per 200 000 000 per 100 200 200 200 200 200 200 200 200 200	86170.00112100004472009***			Fuse, T 315mAL, 250			G650311251160		C206SL/SR	Elect GE		M D040221082100 2	
2012/2012/00/00/00/00/00/00		RD MAIN		7028040887000 K		Fuse, NB 315mA, 250			G650311251150		C209L/R/C	Elect GE		M D040100087100 3	
	ASSEMBLY P.C.BOAI		AUGUSTOS CONTRACTOS CONTRACTOS CONTRACTOS CONTRACTOS CONTRACTOS CONTRACTOS CONTRACTOS CONTRACTOS CONTRACTOS CO		F104/105	Fuse, SB 1A,125V			G650102121160		C209SL/SR	Elect GE		M D040100087100 2	
	ASSEMBLY P.C.BOAI			7028040888400 A		Fuse, T 1AL, 250V			G650102251160		C210L/R/C	Elect GE		M D040471088020 3	
PCB2		RD MAIN		7028040888400 A 7028040889800 D		FUSE, 1 IAL, 2007								W D04047 1000020 3	
PCB2 PCB2	ASSEMBLY P.C.BOAL	RD MAIN RD MAIN		7028040889800 D		Fuse, NB 1A, 250V			G650102251150	2 K	C210SL/SR	Elect GE	470 uF 63 V	M D040471088020 2	
PCB2 PCB2	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI	RD MAIN RD MAIN			F106/107				G650102251150		C210SL/SR C211L/R/C	Elect GE Elect GE			
PCB2 PCB2 PCB2	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors	RD MAIN RD MAIN RD MAIN		7028040889800 D 7028040891200 RDS	F106/107	Fuse, NB 1A, 250V			G650102251150 G650152121150	2 A			470 uF 63 V	M D040471088020 2	
PCB2 PCB2 PCB2 C101	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0.	RD MAIN RD MAIN RD MAIN .0047 uF 40	00 VA	7028040889800 D 7028040891200 RDS D00847208K03D 1	F106/107	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V			G650102251150 G650152121150 G650162251160	2 A 2 D,RDS	C211L/R/C	Elect GE	470 uF 63 V 470 uF 63 V	M D040471088020 2 M D040471088020 3	
PCB2 PCB2 PCB2 C101 C102~104	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0. Film Polyester	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 10	00 VA 00 V J	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3	F106/107	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V			G650102251150 G650152121150	2 A 2 D,RDS	C211L/R/C C211SL/SR	Elect GE Elect GE	470 uF 63 V 470 uF 63 V 10 uF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2	
PCB2 PCB2 PCB2 C101 C102~104 C107	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0 Film Polyester Elect GE	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 10 330 uF 2	00 VA 00 V J 25 V M	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1	F106/107	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V			G650102251150 G650152121150 G650162251160	2 A 2 D,RDS	C211L/R/C C211SL/SR C212L/R/C C212SL/SR	Elect GE Elect GE Elect GE Elect GE	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2	
PCB2 PCB2 PCB2 C101 C102~104 C107 C108	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0 Film Polyester Elect GE Ceramic H/K Disc	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 11 330 uF 2 0.1 uF 5	00 VA 00 V J 25 V M 50 V Z	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D004104097060 1		Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits			G650102251150 G650152121150 G650162251160 G650202251150	2 A 2 D,RDS 2 K	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C	Elect GE Elect GE Elect GE Elect GE Ceramic T.C Axial	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 3	
PCB2 PCB2 PCB2 C101 C102~104 C107 C108 C109	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0 Film Polyester Elect GE Ceramic H/K Disc Elect GE	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 11 330 uF 2 0.1 uF 5 1 uF 5	00 VA 00 V J 25 V M 50 V Z 50 V M	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D004104097060 1 D040010087100 1	IC101	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits KIA7815, Linear-Regu	ılater		G650102251150 G650152121150 G650162251160 G650202251150 J126781500020	2 A 2 D,RDS 2 K	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C C214SL/SR	Elect GE Elect GE Elect GE Elect GE Ceramic T.C Axial Ceramic T.C Axial	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V 1 pF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 3 J D001010077530 2	
PCB2 PCB2 PCB2 PCB2 C101 C102~104 C107 C108 C108 C109 C110	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0 Film Polyester Elect GE Ceramic H/K Disc Elect GE Elect GE Elect GE	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 11 330 uF 2 0.1 uF 5 1 uF 5 100 uF 3	00 VA 00 V J 25 V M 50 V Z 50 V M 35 V M	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D004010087100 1 D040010085100 1	IC101 IC102	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits KIA7815, Linear-Regi KIA7915, Linear-Regi	ılater ılater		G650102251150 G650152121150 G650162251160 G650202251150 J126781500020 J126791500030	2 A 2 D,RDS 2 K	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C C214SL/SR C215L/R/C	Elect GE Elect GE Elect GE Ceramic T.C Axial Ceramic T.C Axial Ceramic T.K Axial	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V 1 pF 50 V 180 pF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 3 J D001010077530 2 J D005181077530 3	
PCB2 PCB2 PCB2 C101 C102~104 C107 C108 C109 C110 C111~112	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0 Film Polyester Elect GE Ceramic H/K Disc Elect GE Elect GE Elect GE Elect GE	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 10 330 uF 2 0.1 uF 5 1 uF 5 100 uF 3 15000 uF 6	00 VA 00 V J 25 V M 50 V Z 50 V M 85 V M	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D04010087100 1 D040101085100 1 D040153088300 2	IC101 IC102 IC103/104	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits KIA7815, Linear-Regi KIA7915, Linear-Regi KIA7805, Linear-Regi	ılater ılater ılater		G650102251150 G650152121150 G650162251160 G650202251150 J126781500020 J126791500030 J126780500270	2 A 2 D,RDS 2 K	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C C214SL/SR C215L/R/C C215SL/SR	Elect GE Elect GE Elect GE Elect GE Ceramic T.C Axial Ceramic T.C Axial Ceramic H/K Axial Ceramic H/K Axial	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V 1 pF 50 V 180 pF 50 V 180 pF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 3 J D005181077530 2 J D005181077530 2	
PCB2 PCB2 PCB2 PCB2 C101 C102~104 C107 C108 C109 C110 C111~112 C1113	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0 Film Polyester Elect GE Ceramic H/K Disc Elect GE Elect GE Elect GE Elect GE	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 10 330 uF 2 0.1 uF 5 1 uF 5 100 uF 3 15000 uF 6 1 uF 5	00 VA 00 V J 25 V M 50 V Z 50 V M 85 V M 63 V M	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D0401097060 1 D040010087100 1 D040153088300 2 D040010087100 1	IC101 IC102 IC103/104 IC105	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits KIA7815, Linear-Regi KIA7915, Linear-Regi KIA7905, Linear-Regi KIA7905, Linear-Regi	ılater ılater ılater ılater		G650102251150 G650152121150 G650162251160 G650202251150 J126781500020 J126791500030 J126780500270 J126790500070	2 A 2 D,RDS 2 K	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C C214SL/SR C215L/R/C C215SL/SR C216L/R	Elect GE Elect GE Elect GE Elect GE Ceramic T.C Axial Ceramic T.C Axial Ceramic H/K Axial Ceramic H/K Axial Elect GE	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V 1 pF 50 V 180 pF 50 V 180 pF 50 V 10 uF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 2 J D005181077530 3 J D005181077530 2 M D040100087100 2	
PCB2 PCB2 PCB2 PCB2 C101 C102~104 C107 C108 C109 C110 C111~112 C113 C114	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0. Film Polyester Elect GE Ceramic H/K Disc Elect GE	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 10 330 uF 2 0.1 uF 5 1 uF 5 100 uF 3 15000 uF 6 1 uF 5 1000 uF 1	00 VA 00 V J 25 V M 50 V Z 50 V M 85 V M 63 V M 50 V M	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D04014097060 1 D040010087100 1 D040153088300 2 D040010087100 1 D04010087100 1 D04010087100 1 D04010087100 1	IC101 IC102 IC103/104 IC105 IC106	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits KIA7815, Linear-Regu KIA7915, Linear-Regu KIA7905, Linear-Regu KIA7905, Linear-Regu LTV817, Optocoupler	ulater ulater ulater ulater		G650102251150 G650152121150 G650162251160 G650202251150 J126781500020 J126791500030 J126780500270 J126790500070 K614817000001	2 A 2 D,RDS 2 K	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C C214SL/SR C215L/R/C C215SL/SR	Elect GE Elect GE Elect GE Elect GE Ceramic T.C Axial Ceramic T.C Axial Ceramic H/K Axial Ceramic H/K Axial	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V 1 pF 50 V 180 pF 50 V 180 pF 50 V 10 uF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 3 J D005181077530 2 J D005181077530 2	
PCB2 PCB2 PCB2 C101 C102~104 C107 C108 C109 C110 C111~112 C113 C114 C115~118	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0. Film Polyester Elect GE Ceramic H/K Disc Elect GE Elect GE Elect GE Elect GE Elect GE Elect GE Film Polyester	RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 10 330 uF 2 0.1 uF 5 1 uF 5 100 uF 3 15000 uF 6 1 uF 5 1000 uF 1 0.1 uF 2	00 VA 00 V J 25 V M 50 V Z 55 V M 63 V M 63 V M 60 V M 10 V M	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D040104097060 1 D040010087100 1 D040153088300 2 D04001087100 1 D040102082200 1 D02010407H080 4	IC101 IC102 IC103/104 IC105	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits KIA7815, Linear-Regi KIA7915, Linear-Regi KIA7905, Linear-Regi KIA7905, Linear-Regi	ulater ulater ulater ulater		G650102251150 G650152121150 G650162251160 G650202251150 J126781500020 J126791500030 J126780500270 J126790500070	2 A 2 D,RDS 2 K	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C C214SL/SR C215L/R/C C215SL/SR C216L/R	Elect GE Elect GE Elect GE Elect GE Ceramic T.C Axial Ceramic T.C Axial Ceramic H/K Axial Ceramic H/K Axial Elect GE Elect GE	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V 1 pF 50 V 180 pF 50 V 180 pF 50 V 10 uF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 2 J D005181077530 3 J D005181077530 2 M D040100087100 2	
PCB2 PCB2 PCB2 PCB2 C101 C102~104 C107 C108 C109 C110 C111~112 C113 C114 C115~118 C119	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0 Film Polyester Elect GE Ceramic H/K Disc Elect GE	RD MAIN RD MAIN RD MAIN .0047 uF	00 VA 00 V J 25 V M 50 V Z 50 V M 85 V M 65 V M 60 V M 10 V M 50 V K	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D040104097060 1 D04010087100 1 D040153088300 2 D040010087100 1 D040010087100 1 D040102082200 1 D02010407H080 4 D040010087100 1	IC101 IC102 IC103/104 IC105 IC106	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits KIA7815, Linear-Regu KIA7905, Linear-Regu KIA7905, Linear-Regu LTV817, Optocoupler KIA7806, Linear-Regu	ulater ulater ulater ulater		G650102251150 G650152121150 G650162251160 G650202251150 J126781500020 J126791500030 J126780500270 J126790500070 K614817000001	2 A 2 D,RDS 2 K	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C C214SL/SR C215L/R/C C215SL/SR C216L/R C218	Elect GE Elect GE Elect GE Elect GE Ceramic T.C Axial Ceramic T.C Axial Ceramic H/K Axial Ceramic H/K Axial Elect GE Elect GE Connectors	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V 1 pF 50 V 180 pF 50 V 180 pF 50 V 10 uF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 3 J D005181077530 3 J D005181077530 2 M D040100087100 2 M D040470087100 1	
PCB2 PCB2 PCB2 PCB2 C101 C102~104 C107 C108 C109 C110 C111~112 C113 C114 C115~118 C119	ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI ASSEMBLY P.C.BOAI Capacitors Ceramic AC (Safety) 0. Film Polyester Elect GE Ceramic H/K Disc Elect GE Elect GE Elect GE Elect GE Elect GE Film Polyester Elect GE Film Polyester	RD MAIN RD MAIN RD MAIN RD MAIN .0047 uF 40 0.047 uF 11 330 uF 2 0.1 uF 5 100 uF 3 15000 uF 6 1 uF 5 1000 uF 1 0.1 uF 5 1000 uF 1 0.1 uF 2 0.1 uF 2 0.1 uF 2	00 VA 00 V J 25 V M 55 V V Z 50 V M 35 V M 33 V M 50 V M 10 V M 50 V K	7028040889800 D 7028040891200 RDS D00847208K03D 1 D02047306C060 3 D040331084100 1 D040104097060 1 D040010087100 1 D040153088300 2 D04001087100 1 D040102082200 1 D02010407H080 4	IC101 IC102 IC103/104 IC105 IC106	Fuse, NB 1A, 250V Fuse, SB 1.5A, 125V Fuse, T 1.6AL, 250V Fuse, NB 2A, 250V Integrated Circuits KIA7815, Linear-Regu KIA7915, Linear-Regu KIA7905, Linear-Regu KIA7905, Linear-Regu LTV817, Optocoupler	ulater ulater ulater ulater		G650102251150 G650152121150 G650162251160 G650202251150 J126781500020 J126791500030 J126780500270 J126790500070 K614817000001	2 A 2 D,RDS 2 K 1 1 2 1 1	C211L/R/C C211SL/SR C212L/R/C C212SL/SR C214L/R/C C214SL/SR C215L/R/C C215SL/SR C216L/R	Elect GE Elect GE Elect GE Elect GE Ceramic T.C Axial Ceramic T.C Axial Ceramic H/K Axial Ceramic H/K Axial Elect GE Elect GE	470 uF 63 V 470 uF 63 V 10 uF 50 V 10 uF 50 V 1 pF 50 V 1 pF 50 V 180 pF 50 V 180 pF 50 V 10 uF 50 V	M D040471088020 2 M D040471088020 3 M D040471088020 2 M D040100087100 3 M D040100087100 2 J D001010077530 2 J D005181077530 3 J D005181077530 2 M D040100087100 2	

Ref.No.	Description	Part No. Q'ty Version	Ref.No.	Description				Q'ty Version	Ref.No.	Description		Part No.	Q'ty Version
CP201 CP202	Wafer 2.0mm, 10P	L104353130200 1	R218SL/SR	Metal Film				2		Diodes			
CP202	Wafer 3.96mm, 2P	L101220100000 1	R219L/R/C	Metal Film	560 ohm		J C06005616P520		D301~312	1N4148M, Switching		K000414801520	12
	D'		R219SL/SR	Metal Film	560 ohm		J C06005616P520		D313	SLR-34URCF25, Round		K500032101120	1
D0041 /D10	Diodes		R220L/R/C	Metal Film				3	D314/315	1N4148M, Switching		K000414801520	2
D201L/R/C	1N4148M, Switching	K000414801520 3	R220SL/SR R221L/R/C	Metal Film	4.7 kohm			2	D316~319	SLR-34URCF25, Round		K500032101120	4
D201SL/SR	1N4148M, Switching	K000414801520 2	R221SL/SR	Metal Film Metal Film	82 ohm		J C06008206P520	3	D321/322	1N4148M, Switching		K000414801520	2
D202L/R/C	1N4148M, Switching	K000414801520 3	R222L/R/C	Metal Film	82 ohm 82 ohm			2					
D202SL/SR	1N4148M, Switching	K000414801520 2	R222SL/SR	Metal Film	82 ohm			2		Transistors			
	T		R223L/R/C	Carbon Film	22 kohm			3	Q301	BKTC3199, NPN		J5023199Y0050	1
00041 1040	Transistors		R223SL/SR	Carbon Film			J C00002236P520		Q302~304	DTC114YS, NPN		J6020114Y0050	3
Q201L/R/C	KTA1268, PNP	J5001268B0050 3	R224L/R/C	Carbon Film	22 kohm			3	Q305~308	BKTC3199, NPN		J5023199Y0050	4
Q201SL/SR	KTA1268, PNP	J5001268B0050 2	R224SL/SR	Carbon Film	22 kohm			2	Q309	MPSA06, NPN		J5020600Y0050	1
Q202L/R/C	KTA1268, PNP	J5001268B0050 3	R225L/R/C	Carbon Film	2 kohm		J C00002026P520	3	Q310/311	DTC114YS, NPN		J6020114Y0050	2
Q202SL/SR Q203L/R/C	KTA1268, PNP	J5001268B0050 2	R225SL/SR	Carbon Film	2 kohm			2	Q312	BKTC3199, NPN		J5023199Y0050	1
Q203SL/SR	KTA1268, PNP KTA1268, PNP	J5001268B0050 3 J5001268B0050 2	R226L/R/C	Metal Film	680 ohm			3					
Q203L/R/C	KTA1268, PNP	J5001268B0050 2 J5001268B0050 3	R226SL/SR	Metal Film	680 ohm	1/5 W		2		Resistors			
Q204SL/SR	KTA1268, PNP	J5001268B0050 3	R227L/R/C	Metal Film	1.2 kohm	1/5 W	J C06001226P520	3	R301~310	Metal Film	1 kohm 1/5 W	J C06001026P520	10
Q205L/R/C	BKTC3200, NPN	J5001266B0050 2 J5023200B0050 3	R227SL/SR	Metal Film	1.2 kohm		J C06001226P520	2	R311~320	Carbon Film	100 kohm 1/5 W	J C00001046P520	10
Q205SL/SR	BKTC3200, NPN	J5023200B0050 3 J5023200B0050 2	R228L/R	Metal Film	75 ohm	1/5 W	J C06007506P520	2	R321~324	Carbon Film	47 kohm 1/5 W	J C00004736P520	4
Q206L/R/C	BKTC3200, NPN		R228SL/SR/C	Metal Film	220 ohm			3	R325	Carbon Film	22 kohm 1/5 W	J C00002236P520	1
Q206SL/SR	BKTC3200, NPN	J5023200B0050 3 J5023200B0050 2	R229L/R	Metal Film	75 ohm			2	R326~328	Carbon Film		J C00001036P520	3
Q2003L/SR Q207L/R/C	KTA1268, PNP	J5001268B0050 3	R229SL/SR/C	Metal Film	220 ohm			3	R329	Metal Film		J C06004726P520	1
Q207SL/SR	KTA1268, PNP	J5001268B0050 3	R230L/R/C	Metal Film	82 ohm	1/5 W	J C06008206P520	3	R330/331	Carbon Film		J C00002236P520	2
Q20/3D/3R Q208L/R/C	2SA1360, PNP	J5001266B0050 2 J5001360O000D 3	R230SL/SR	Metal Film	82 ohm			2	R332RV	Carbon Film			1 A
Q208SL/SR	2SA1360, PNP	J5001360O000D 2	R231L/R/C	Metal Film	3.3 ohm	1/5 W	J C0603R306P520	3	R333A	Carbon Film			1 A
Q2000E/GR/C	2SC3423, NPN	J5023423O0000 3	R231SL/SR	Metal Film	3.3 ohm			2	R334/335	Carbon Film		J C00006836P520	2
Q209SL/SR	2SC3423, NPN	J5023423Q0000 2	R232L/R/C	Metal Film	3.3 ohm	1/5 W	J C0603R306P520	3	R336	Carbon Film		J C00001036P520	1
Q210L/R/C	2SC1740S, NPN	J5021740S0010 3	R232SL/SR	Metal Film	3.3 ohm		 -	2	R337/338	Metal Film		J C06004716P520	2
Q210SL/SR	2SC1740S, NPN	J5021740S0010 2	R233L/R/C	Metal Film	1.8 kohm	1/5 W	J C06001826P520	3	R339	Metal Film	3.9 kohm 1/5 W		1
Q211L/R/C	2SC4883. NPN	J5024883Y0000 3	R233SL/SR	Metal Film	1.8 kohm	1/5 W	J C06001826P520	2	R340	Carbon Film		J C00001036P520	1
Q211SL/SR	2SC4883, NPN	J5024883Y0000 2	R234L/R/C	Carbon Film	2 kohm			3	R341/342	Metal Film		J C06001026P520	2
Q212L/R/C	2SA1859, PNP	J5001859Y0000 3	R234SL/SR	Carbon Film		1/5 W		2	R343/344	Carbon Film		J C00002236P520	2
Q212SL/SR	2SA1859, PNP	J5001859Y0000 2	R235L/R/C	Metal Film	910 ohm	1/5 W		3	R345/346	Carbon Film		J C00001036P520	2
Q213L/R/C	2SC5200, NPN	J502520000010 3	R235SL/SR	Metal Film	910 ohm	1/5 W		2	R347	Metal Film		J C06001016P520	1
Q213SL/SR	2SC5200, NPN	J502520000010 2	R236L/R/C	Carbon Film	6.8 kohm			3	R348RDS	Carbon Film	100 kohm 1/5 W		1 RDS
Q214L/R/C	2SA1943, PNP	J500194300010 3	R236SL/SR	Carbon Film	6.8 kohm			2	R349	Metal Film	470 ohm 1/5 W		1
Q214SL/SR	2SA1943, PNP	J500194300010 2	R237L/R/C	Metal Film	39 ohm	1/5 W		3	R350	Carbon Film		J C00001046P520	1
Q215L/R/C	BKTC3200, NPN	J5023200B0050 3	R238L/R/C	Metal Film	39 ohm	1/5 W		3	R351/352 R353/354	Metal Film	3.3 ohm 1/5 W		2
Q215SL/SR	BKTC3200, NPN	J5023200B0050 2	R239L/R/C	Metal Film	39 ohm	1/5 W		3	R355	Carbon Film	5.6 kohm 1/5 W		2
			R240L/R/C	Metal Film	39 ohm		J C06003906P520	3	R356	Carbon Film Metal Film	10 kohm 1/5 W		1
	Resistors		R243	Metal Film	560 ohm	1/5 W		1	R357~360	Carbon Film	100 ohm 1/5 W . 100 kohm 1/5 W .		1
MRP201L/R/C	Cement MPR Dual	0.27 ohm 5 W J C144R27069300 3	R245L/R	Carbon Film	22 kohm			2	R361	Carbon Film	22 kohm 1/5 W		4
MRP201SL/SR	Cement MPR Dual	0.27 ohm 5 W J C144R27069300 2	R246	Metal Film	560 ohm	1/5 VV	J C06005616P520	1	R362	Metal Film		J C06004726P520	1
R201L/R/C	Metal Film	1 kohm 1/5 W J C06001026P520 3		Missellenseus					R363	Carbon Film		J C00002236P520	1
R201SL/SR	Metal Film	1 kohm 1/5 W J C06001026P520 2	ONDOO	Miscellaneous					R364	Carbon Film		J C00002246P520	1
R202L/R/C	Carbon Film	33 kohm 1/5 W J C00003336P520 3	GND201	Terminal GND			3790040876010	1	R365~368	Metal Film	2.2 kohm 1/5 W		4
R202SL/SR	Carbon Film	33 kohm 1/5 W J C00003336P520 2	L201L/R/C	Filter Inductor, 0.5 uH				3	R369/370	Carbon Film		J C00006836P520	2
R203L/R/C	Metal Film	180 ohm 1/5 W J C06001816P520 3	TH201L/R/C	Thermistor, 3 kohm				3	R371	Carbon Film	10 kohm 1/5 W .		1
R203SL/SR	Metal Film	180 ohm 1/5 W J C06001816P520 2	TH201SL/SR	Thermistor, 3 kohm			F340530200000	2	R372NORDS	Carbon Film			1 A,D,RDS,K
R204L/R/C	Metal Film	180 ohm 1/5 W J C06001816P520 3	* ACCEMBLY	D C BOARD FRONT	DCD 4 E C	7001	7020040007400		R373RDS	Carbon Film		J C00001046P520	
R204SL/SR	Metal Film	180 ohm 1/5 W J C06001816P520 2		P.C.BOARD FRONT			7028040887400	K	R374	Carbon Film	10 kohm 1/5 W		1
R205L/R/C	Metal Film	1.5 kohm 1/5 W J C06001526P520 3		P.C.BOARD FRONT			7028040888800	A	R375	Carbon Film	47 kohm 1/5 W	J C00004736P520	1
R205SL/SR	Metal Film	1.5 kohm 1/5 W J C06001526P520 2		P.C.BOARD FRONT			7028040890200	D	R376	Carbon Film	10 kohm 1/5 W ,	J C00001036P520	1
R206L/R/C	Metal Film	1.5 kohm 1/5 W J C06001526P520 3	10.00 1.10 10.0000 more and 6.40 more	P.C.BOARD FRONT	10030gun300000000000000000000000000000000	7, 8, 9)	7028040891600	RDS	R377	Carbon Film	100 kohm 1/5 W ,	J C00001046P520	1
R206SL/SR	Metal Film	1.5 kohm 1/5 W J C06001526P520 2	PCB4	ASSEMBLY P.C.BO	ARD FRONT				R378	Carbon Film	10 kohm 1/5 W ,		1
R207L/R/C	Not Used!			Capacitors					R379	Carbon Film	8.2 kohm 1/5 W .		1
R207SL/SR	Not Used!	19 kohm 1/5 W C00004936D530 3	C301-310	Ceramic T.C Axial	100 pF	50 V	J D001101077530	10	R380	Metal Film		J C06001816P520	1
R208L/R/C	Carbon Film	18 kohm 1/5 W J C00001836P520 3 18 kohm 1/5 W J C00001836P520 2	C312	Film Polyester	0.047 uF	100 V		1	R381	Metal Film		J C06004716P520	
R208SL/SR	Carbon Film Metal Film	220 ohm 1/5 W J C00001836P520 2	C313	Elect GE	0.1 uF		M D040R10087100	1	R382	Metal Film		J C06001026P520	
R209L/R/C		220 ohm 1/5 W J C06002216P520 3 220 ohm 1/5 W J C06002216P520 2	C314/315	Ceramic T.C Axial	820 pF		J D001821077530	2	R383/384	Carbon Film	5.1 kohm 1/5 W .	J C00005126P520	2
R209SL/SR	Metal Film	10 kohm 1/5 W J C00001036P520 2	C316	Elect GE	47 uF		M D040470083100	1					
R210L/R/C R210SL/SR	Carbon Film Carbon Film	10 kohm 1/5 W J C00001036P520 3	C317	Elect GE	47 uF		/ D040470084100	1		Miscellaneous			
R211L/R/C	Carbon Film	43 kohm 1/5 W J C00004336P520 2	C318	Elect GE	10 uF		/ D040100087100	1	FL301	FIP-8DM7R, Display FLT		K530001890010	1
R211SL/SR	Carbon Film	43 kohm 1/5 W J C00004336P520 2	C319	Elect GE	47 uF	50 V I	/I D040470087100	1	IC301	CXP-82852-114Q, DWP4	_ , , , , , , , , , , , , , , , , , , ,	J020828521140	1
R212L/R/C	Carbon Film	1.3 kohm 1/5 W J C00001326P520 3	C320	Elect GE	10 uF	16 V I	/ D040100083100	1	IC302	CRV1G342-185BD, RMC	Module	E940342210000	1
R212SL/SR	Carbon Film	1.3 kohm 1/5 W J C00001326P520 2	C321	Ceramic T.C Axial	100 pF	50 V	J D001101077530	1	SW339	Tact Sw		G180040500010	
R213L/R/C	Carbon Film	33 kohm 1/5 W J C00003336P520 3	C322	Double Layer	0.047 uF	5.5 V	D090473700200	1	VR351	Encoder Volume		C49004106001A	
R213SL/SR	Carbon Film	33 kohm 1/5 W J C00003336P520 2	C323/324	Ceramic T.C Axial	100 pF	50 V	J D001101077530	2	X-TAL301	Resonator, Ceramic, 10 M	Hz	E830100000050	
R214L/R/C	Metal Film	560 ohm 1/5 W J C06005616P520 3							VR301	EC16B24D0002-ZZZ		C450042030010	1
R214SL/SR	Metal Film	560 ohm 1/5 W J C06005616P520 2		Connectors					according and manifest and frequency and other security of	0.00.000.000.000.0000.00000.000000.00000			
R215L/R/C	Jumper	L045084006020 3	CN301	FPC Plug Angle, 1.25r	nm, 31P		L131520443100	1	PCB5	ASSEMBLY P.C.BOAR	D TONE		
R215SL/SR	Jumper	L045084006020 2		FPC Cable, 1.25mm, 3			L302331310010	1		Capacitors			
R216L/R/C	Metal Film	560 ohm 1/5 W J C06005616P520 3	CN302	CNT Ass'y, 400mm, 7F			L022074031320	1	C601L/R	Elect GE	4.7 uF 50 V N	M D0404R7087100	2
R216SL/SR	Metal Film	560 ohm 1/5 W J C06005616P520 2	CN303	CNT Ass'y, 160mm, 3F			L024031632320	1	C602L/R	Ceramic T.C Axial		J D001470067530	
R217L/R/C	Metal Film	560 ohm 1/5 W J C06005616P520 3	CP304ABK	CNT Ass'y, 2P			L024020832310	1 A,B,K	C603L/R	Elect GE		M D040100083120	
R217SL/SR	Metal Film	560 ohm 1/5 W J C06005616P520 2	CN305	CNT Ass'y, 80mm, 4P			L021040833320	1	C604L/R	Elect GE		M D040100083120	
R218L/R/C	Metal Film	4.7 kohm 1/5 W J C06004726P520 3							C605L/R			J D020823068050	
-		47							•	,			-

Ref.No.	Description						y Version	Ref.No.	Description
C606L/R	Film Polyester	0.015 uF	63 V	J		_		PCB9	ASSEMBL
C607L/R	Film Polyester	0.022 uF	63 V	J	D020223068050	2		C351/352	Ceramic T.0
C608L/R	Film Polyester	0.0033 uF	63 V		D020332068050	2		VR351	Rotary
C609L/R	Film Polyester	0.33 uF	63 V	J	D020334068050	2			•
C610L/R	Film Polyester	0.0082 uF	63 V		D020822068050	2		* ASSEMBLY	P C BOARD
C611L/R	Elect GE	10 uF	16 V	M	D040100083120	2			
C612	Elect GE	3.3 uF	50 V	M	D0403R3087100	1		* ASSEMBLY	
C613/C614	Elect GE	47 uF	25 V	М	D040470084100	2		* ASSEMBLY	P.C.BOARD
C651LD/RD	Ceramic T.C Axial	100 pF	50 V		D001101077530	2	D,RDS	* ASSEMBLY	P.C.BOARD
C652LD/RD	Ceramic T.C Axial	100 pF	50 V		D001101077530	2	D,RDS	PCB10	ASSEMBL
C653	Elect GE	33 uF	25 V	М	D040330084100	1		The second secon	1070-00-080007942-00
								C401~410LD/R	Capacitor
	Connectors								
CP305	Wafer, 2.0mm, 4P, AN	IGEL			L101220040010	1		C411 C412 ·	Elect GE
CN601	Wafer, 2.0mm, 5P				L101220050000	1		C414	Elect GE
	CNT Ass'y, 5P				L021054584320	1		C417	Elect GE
CN602	Wafer, 2.0mm, 9P				L101220090000	1		C417 C418~421	Ceramic T.C
14054	CNT Ass'y, 9P				L021094070320	1		C422L/R	Elect GE Elect GE
W651	Lug Wire, 1P				L046241020580	1		C423L/R	
								C423L/R C424L/R	Elect GE
	Diodes							C425L/R	Elect GE
D651	SLR-56URCF14, Rou	nd			K500052101160	1			Elect GE
								C426LD/RD	Ceramic T.C
	Transistors							C427L/R	Ceramic T.C
Q601	DTC114YS, NPN				J6020114Y0050	1		C428L/R	Elect GE
Q602	DTA114YS, PNP				J601114YS0050	1		C429LD/RD	Ceramic H/I
Q603L/R	2SK117Y				J5441170Y0050	2		C430L/R	Elect GE
Q651	DTC114YS, NPN				J6020114Y0050	1		C431L/R	Film Polyest
	2.2				0002011410000	•		C432L/R	Film Polyest
	Resistors							C433L/R	Elect GE
D6041 /D		400 leabor	4 /E \AI	,	000004040DF00	•		C434L/R	Film Polyest
R601L/R	Carbon Film	100 kohm			C00001046P520	2		C435/436	Elect GE
R602L/R	Carbon Film	1 Mohm			C00001056P520	2		C437	Ceramic HII
R603L/R	Carbon Film	47 kohm	1/5 W		C00004736P520	2			
R604L/R	Metal Film	2.7 kohm	1/5 W		C06002726P520	2			Connector
R605L/R	Carbon Film	10 Mohm			C00001066P520	2		CN401	B'D to B'D V
R606L/R	Metal Film	4.7 kohm	1/5 W		C06004726P520	2		CN402	B'D to B'D V
R607L/R	Carbon Film	27 kohm	1/5 W		C00002736P520	2			
R608L/R	Metal Film	3.3 kohm	1/5 W		C06003326P520	2			Diodes
R609L/R	Carbon Film	22 kohm	1/5 W		C00002236P520	2		D401	1N4148M, S
R610L/R	Metal Film	560 ohm	1/5 W		C06005616P520	2		D401	1144 140IVI, C
R611L/R	Metal Film	2.2 kohm	1/5 W		C06002226P520	2			
R612L/R	Metal Film	1.8 kohm	1/5 W		C06001826P520	2			Integrated
R613L/R	Carbon Film	100 kohm	1/5 W		C00001046P520	2		IC401	LC7821, Log
R614	Carbon Film	100 kohm	1/5 W		C00001046P520	1		IC402~404	KIA4559, Lii
R615	Carbon Film	1 Mohm			C00001056P520	1			
R616/617	Metal Film	220 ohm	1/5 W		C06002216P520	2			Coils
R618L/R	Carbon Film	1 Mohm	1/5 W	J	C00001056P520	2		L401LD/RD	Filter Inducto
R651	Metal Film	820 ohm	1/5 W	J	C06008216P520	1			
R652L/R	Metal Film	470 ohm	1/5 W	J	C06004716P520	2			Resistors
R653	Metal Film	75 ohm	1/5·W	J	C06007506P520	1		R401L/R	Metal Film
								R402L/R	Metal Film
	Miscellaneous							R403L/R	
CP601	Wafer, 2.0mm, 5P				L101220050000	1		R404L/R	Metal Film Metal Film
C601	NJM2068M, Linear OF)			J121206800020	1			Metal Film
SW651	Tact Sw				G180040500010	1	D	R405L/R	
VR601/602	RK16K128000114C, F	MD41			C455121402300	2		R406	Metal Film
VR603	RK16K118000114H, F				C455111402000	1		R407	Carbon Film
JACK601	RCA, 3P	CIVIIVITT			G606040300000	1		R408~412	Metal Film
JACKOU!	NOA, or				0000040300000	'		R413~415	Metal Film
nese i	ASSEMBLY B C BC	ADD UDICOV	CHATO			aesa		R416L/R	Carbon Film
PCB6	ASSEMBLY P.C.BC			200,000				R417L/R	Carbon Film
C701L/R	Ceramic HIK Axial	560 pF	50 V	J	D005561077530	2		R418L/R	Carbon Film
CN701	CNT Ass'y 6P(2P+4P)				L018065042660	1		R419L/R	Carbon Film
JACK701	HTJ064-11D(G)	.=			G402040161330	1		R420L/R	Metal Film
R701L/R	Metal Film	470 ohm	2 W		C060047166520	2		R421L/R	Carbon Film
R702L/R	Carbon Film	15 kohm	1/5 W		C00001536P520	2		R422L/R	Carbon Film
R703L/R	Carbon Film	22 kohm	1/5 W	J	C00002236P520	2		R423L/R	Metal Film
SW701	SPLL, 19×1M071 SU	690			G000040960000	1		R424L/R	Carbon Film
W701	Lug, 1P				L046241020580	1		R425L/R	Carbon Film
								R426L/R	Metal Film
PCB7	ASSEMBLY P.C.BC	ARD TACT SV	MTCH					R427L/R	Carbon Film
CP304	Wafer, 2P			::::::::::::::::::::::::::::::::::::::	L024020832310	1	Next Library Control	R428/429	Metal Film
SW751	Tact Sw				G180040500010	1		R430L/R	Metal Film
	. 401 011				2 1000-1000010	•		R431L/R	Metal Film
DCD#	ASSEMBLY P.C.BC	APD BIICH O	Antou				0	R432	Carbon Film
PCB8		יעעה במטע פו	en I CH		LAGORAGA		D DDA	R433L/R	Metal Film
CN751D	CNT PLUG, 2P				L108B2P300010	1	D,RDS	R434L/R	Metal Film
SW752D	Push Power Sw				G000041610000	1	D,RDS	R435L/R	Carbon Film
									Carbon Fil

Ref.No.	Description				Part No.	Q'ty	Version
PCB9	ASSEMBLY P.C.B	OARD ENCOD	20020000000				
C351/352	Ceramic T.C Axial	820 pF	50 V	J	D001821067530		
/R351	Rotary				C49004106001A	1	
ACCEMBIN	P.C.BOARD INPUT	DCD 40 44	(O.)		7028040887600		K
							A
	P.C.BOARD INPUT				7028040889000		
	P.C.BOARD INPUT				7028040890400		D
Antonio and and an annual an annual and an annual an a	P.C.BOARD INPUT	children tabable horses bed hance	404402444400	enten.	7028040891800		RDS
PCB10	ASSEMBLY P.C.B	DARD INPUT					
	Capacitors						
	R Ceramic T.C Axial	100 pF 47 uF	50 V		D001101077530 D040470084100		D,RDS
C411 C412 ·	Elect GE Elect GE	47 uF 1 uF	25 V 50 V		D040470084100	1	
C414	Elect GE	47 uF	25 V		D040470084100	1	
C417	Ceramic T.C Axial	100 pF	50 V		D001101077530	1	
C418~421	Elect GE	47 uF	25 V	M	D040470084100	4	
C422L/R	Elect GE	4.7 uF	50 V		D0404R7087100	2	
C423L/R	Elect GE	4.7 uF	50 V		D0404R7087100	2	
C424L/R C425L/R	Elect GE Elect GE	4.7 uF 4.7 uF	50 V 50 V		D0404R7087100 D0404R7087100	2	
C426LD/RD	Ceramic T.C Axial	100 pF	50 V		D001101077530	2	D,RDS
C427L/R	Ceramic T.C Axial	100 pF	50 V		D001101077530	2	5,1100
C428L/R	Elect GE	4.7 uF	50 V		D0404R7087100	2	
C429LD/RD	Ceramic H/K Axial	0.0022 uF	16 V		D005222773530	2	D,RDS
C430L/R	Elect GE	33 uF	25 V		D040330084100	2	
C431L/R	Film Polyester	0.0018 uF	100 V		D02018206C060	2	
C432L/R C433L/R	Film Polyester	0.0056 uF	100 V 50 V		D02056206C060	2	
C433L/R C434L/R	Elect GE Film Polyester	1 uF 0.0018 uF	100 V		D040010087100 D02018206C060	2	
C435/436	Elect GE	47 uF	25 V		D040470084100	2	
C437	Ceramic HIK Axial	10000 pF	16 V	J		1	
	Connectors						
CN401	B'D to B'D Wafer, 2.0				L101352371110	1	
CN402	B'D to B'D Wafer, 2.0	mm, 8P			L101352370810	1	
	Blades						
0.404	Diodes				V000444004E00		
0401	1N4148M, Switching				K000414801520	1	
	Integrated Circuits						
C401	LC7821, Logic				J040782100010	1	
C402~404	KIA4559, Linear OP				J121455900010	3	
	•						
	Coils						
L401LD/RD	Filter Inductor, 47 uH				D330470001020	2	
	Resistors						
R401L/R	Metal Film	470 ohm	1/5 W		C06004716P520	2	
R402L/R	Metal Film	470 ohm	1/5 W	-	C06004716P520	2	
R403L/R R404L/R	Metal Film Metal Film	470 ohm 470 ohm	1/5 W 1/5 W		C06004716P520 C06004716P520	2	
R405L/R	Metal Film	1 kohm	1/5 W		C06004710F320	2	
R406	Metal Film	220 ohm	1/5 W		C06002216P520	1	
R407	Carbon Film	100 kohm	1/5 W	J		1	
R408~412	Metal Film	220 ohm	1/5 W	J	C06002216P520	5	
R413~415	Metal Film	1 kohm	1/5 W		C06001026P520	3	
R416L/R	Carbon Film	100 kohm	1/5 W		C00001046P520	2	
R417L/R	Carbon Film	100 kohm	1/5 W		C00001046P520 C00001046P520	2	
R418L/R R419L/R	Carbon Film Carbon Film	100 kohm 100 kohm	1/5 W 1/5 W		C00001046P520	2	
R420L/R	Metal Film	1 kohm	1/5 W		C060010401520	2	
R421L/R	Carbon Film	91 kohm	1/5 W		C00009136P520	2	
R422L/R	Carbon Film	91 kohm	1/5 W	J	C00009136P520	2	
R423L/R	Metal Film	820 ohm	1/5 W	J	C06008216P520	2	
R424L/R	Carbon Film	43 kohm	1/5 W		C00004336P520	2	
R425L/R	Carbon Film	560 kohm	1/5 W		C00005646P520	2	
R426L/R R427L/R	Metal Film Carbon Film	560 ohm 100 kohm	1/5 W 1/5 W	J	C06005616P520 C00001046P520	2 2	
R427DR R428/429	Metal Film	220 ohm	1/5 W		C06002216P520	2	
R430L/R	Metal Film	1 kohm	1/5 W		C06001026P520	2	
R431L/R	Metal Film	1 kohm	1/5 W		C06001026P520	2	
	Carbon Film	100 kohm	1/5 W		C00001046P520	1	
			4 /= 1 4 4		C0C004746DE00	•	
R433L/R	Metal Film	470 ohm	1/5 W		C06004716P520	2	
R433L/R R434L/R	Metal Film	470 ohm	1/5 W	J	C06004716P520	2	
R432 R433L/R R434L/R R435L/R R436				J			

Ref.No.	Description				Part No.	Q'ty Version
PCB11	ASSEMBLY P.C.BO	ARD INPUT	s VIDE)		
	Capacitors					
	O Ceramic T.C Axial	100 pF	50 V	J		
C460	Elect GE	47 uF	25 V		D040470084100	1
C461 C463	Elect GE Elect GE	1 uF 47 uF	50 V 25 V		D040010087100 D040470084100	1 1
C466~469	Ceramic T.C Axial	100 pF	50 V	J		4
C470	Ceramic H/K Axial	0.1 uF	50 V	z		1
C471	Elect GE	47 uF	25 V	М	D040470084100	1
C472	Elect GE	10 uF	50 V		D040100087100	1
C473 C474/475	Elect GE	47 uF	25 V 50 V		D040470084100	1
C477	Elect GE Elect GE	10 uF 470 uF	10 V		D040100087100 D040471082100	2 1
C478	Ceramic H/K Axial	0.1 uF	50 V		D005104097530	i
C479	Elect GE	33 uF	25 V		D040330084100	1
C480	Elect GE	470 uF	10 V		D040471082100	1
C481	Elect GE	33 uF	25 V		D040330084100	1
C482 C483/484	Elect GE Elect GE	470 uF 33 uF	10 V 25 V		D040471082100 D040330084100	1 2
0403/404	LIEGI GE	33 ur	25 V	ivi	D040330064100	2
	Connectors					
CN451	B'D to B'D Wafer, 2.0m	nm, 16P			L101352371610	1
CP601	Wafer, 2.0mm, 5P				L101220050000	1
	5					
D450/454	Diodes				1/000 / / / 00 / 500	
D450/451	1N4148M, Switching				K000414801520	2
	Integated Circuits					
IC450	LC7821, Logic				J040782100010	1
IC451	BA7625, Video SW				J171762500000	i 1
IC452	MC14053, Logic				J040140530000	1
IC453	MC14094, Logic				J040140940000	1
Q450/451	BKTA1267, PNP				J5001267Y0050	2
	Resistors					
R451L/R	Metal Film	470 ohm	1/5 W	J	C06004716P520	2
R452L/R	Metal Film	470 ohm	1/5 W		C06004716P520	2
R453L/R	Metal Film	470 ohm	1/5 W	J	C06004716P520	2
R454L/R	Metal Film	470 ohm	1/5 W		C06004716P520	2 .
R455L/R R456	Metal Film	470 ohm	1/5 W		C06004716P520	2
R457	Metal Film Carbon Film	220 ohm 100 kohm	1/5 W 1/5 W		C06002216P520 C00001046P520	1
R458~463	Metal Film	1 kohm			C06001026P520	6
R464~469	Metal Film	3.3 kohm			C06003326P520	6
R470	Metal Film	220 ohm	1/5 W		C06002216P520	1
R471/472	Metal Film	100 ohm	1/5 W		C06001016P520	2
R473~478 R479/480	Metal Film Metal Film	75 ohm 100 ohm	1/5 W 1/5 W		C06007506P520 C06001016P520	6 2
1470/400	Wictai T IIII	100 01111	1/5 **	J	C00001010F320	2
PCB12	ASSEMBLY P.C.BO	ARD SPEAKI	≘R			
	Capacitors					
C901L/R/C	Film Polyester	0.047 uF	100 V	_	D02047306C060	3
C901SL/SR	Film Polyester Ceramic H/K Axial	0.047 uF	100 V		D02047306C060	2
C902LD/RD/CD C902SLD/SRD	Ceramic H/K Axial	4700 pF 4700 pF	16 V 16 V		D005472773530 D005472773530	3 2
C903LD/RD/CD		4700 pF	16 V	-	D005472773530	3
C903SLD/SRD	Ceramic H/K Axial	4700 pF	16 V	Ĵ		2
D0041 (D/O	Resistors					
R901L/R/C R901SL/SR	Metal Film Metal Film	10 ohm 10 ohm	2 W	J	C060010066520	3
R902SL/SR	Metal Film Metal Film	10 onm 10 ohm	2 W 1 W	J	C060010066520 C060010065520	2
		10 01111		J	2000010000020	_
	Miscellaneous					
CP701OUT	B'D to B'D Wafer, 2.5m	m, 4P			L104353130400	1
CN901	Wafer, 3.96mm, 11P				L102526681110	1
L901SL/SR	Coil, Filter Inductor, 0.5	uH			D330900001320	2
PCB13	ASSEMBLY P.C.BO	ARD PROCES	SSOR		7028040888000	K
PCB13	ASSEMBLY P.C.BO	4.0			7028040889400	A
PCB13	ASSEMBLY P.C.BO				7028040899800	D
PCB13	ASSEMBLY P.C.BO	CONTRACTOR OF THE PARTY OF THE				
7019		AND FRUCE	JOUR		7028040892200	RDS
C501L/R	Capacitors Film Polyester	0.1 uF	63 V	.1	D020104068050	2
C502L/R	Film Polyester	0.1 uF	63 V	J	D020104068050	2
				•	_ 3 1000000	-

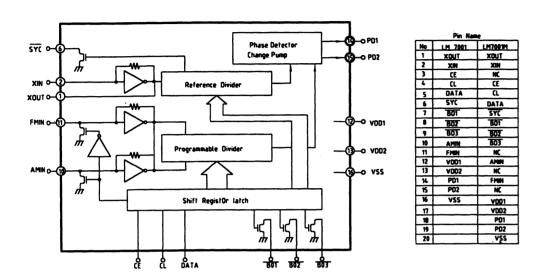
Ref.No.	Description			Part No.	Q'ty Version	Ref.No.	Description		Part No.	Q'ty Version	Ref.No.	Description			Part No.	Q'ty Version
C503L/R	Ceramic Chip T.C	100 pF	50 V	D010101167210	2	D501~509	1N4148M, Switching		K000414801520	9	R560L/R	Chip Thick	100 kohm	1/10 W J	C200010460200	
C504L/R	Elect GE	2.2 uF	50 V	M D0402R2087100	2	D510	UZ5.1BSB ,Zener		K06005R114520	1	R561L/R	Chip Thick		1/10 W J		
C505L/R	Elect GE	2.2 uF	50 V	M D0402R2087100	2						R562L/R	Chip Thick		1/10 W J		
C506L/R	Elect GE	, 4.7 uF	50 V	M D0404R7087100	2		Integrated Circuits				R563L/R	Chip Thick		1/10 W J		
C507	Ceramic Chip T.C	100 pF	50 V			IC501	LC7822, Analog		J080782200000	1	R564L/R	Chip Thick		1/10 W J		
C508L/R	Elect GE	4.7 uF	50 V			IC502	MC14053, Analog		J080140530010		R565L/R	Chip Thick	100 kohm	1/10 W J	C200010460200	
C509L/R	Ceramic Chip T.C	100 pF	50 V		_	IC503~505	LC7536, Elect VR		J084753600010		R566	Chip Thick	1 kohm	1/10 W J	C200010260200	1
C510L/R	Elect GE	0.47 uF	50 V			IC506~508	NJM2068DD, Linear OP		J121206800000		R567L/R	Chip Thick	1 kohm	1/10 W J	C200010260200	2
C511L/R	Ceramic Chip T.C	22 pF	50 V			IC509/510	NJM4580L, Linear OP		J121458000030		R568L/R	Chip Thick	4.7 kohm	1/10 W J	C200047260200	2
C512L/R	Elect GE	4.7 uF	50 V			IC511/512	NJM2068DD, Linear OP		J121206800000		R569L/R	Metal Film	2.2 kohm	1/5 W J	C06002226P520	2
C513L/R	Ceramic Chip T.C	0.1 uF	50 V			IC513	NJM4580L, Linear OP		J121458000030	1	R570~573	Carbon Film	15 kohm	1/5 W J	C00001536P520	4
C514L/R	Elect GE	4.7 uF	50 V		2 .	IC514	NJM2068DD, Linear OP		J121206800000	1	R574	Metal Film	2.2 kohm	1/5 W J	C06002226P520	1
C516	Elect GE	47 uF	25 V		1	IC515	NJM4580L, Linear OP		J121458000030	1	R575	Carbon Film	10 kohm	1/5 W J	C00001036P520	1
C517L/R C518LD/RD	Elect GE Ceramic T.C Axial	10 uF 100 pF	50 V	M D040100087100		IC516/517	NJM2068DD, Linear OP		J121206800000	2	R576	Metal Film			C06001026P520	1
C518LD/RD	Elect GE	47 uF		J D001101077530 M D040470084100		IC518/519	NJM4580L, Linear OP		J121458000030	2	R577	Metal Film			C06001026P520	1
C520	Elect GE	1 uF		M D040010087100	1						R578	Carbon Film			C00001036P520	1
C521~523	Elect GE	47 uF		M D040470084100	3		Transistors				R579	Metal Film			C06004726P520	1
C524	Ceramic Chip T.C	100 pF	50 V			Q501~504	DTA114YS, PNP		J601114YS0050	4	R580L/R	Metal Film			C06004716P520	
C525	Elect GE	2.2 uF	50 V		1	Q505L/R	KTD1302, NPN		J5031302B0050	2	R581L/R R582L/R	Metal Film Chip Thick	47 ohm		C06004706P520	
C526	Film Polyester	0.1 uF	63 V		1	Q506/507	KTD1302, NPN		J5031302B0050		R583	Chip Thick			C200056160200 C200056260200	2
C527	Film Polyester	0.1 uF	63 V			Q508L/R	KTD1302, NPN		J5031302B0050		R584	Chip Thick			C200036260200 C200039260200	1
C528	Ceramic Chip T.C	100 pF	50 V			Q509L/R	2SK117Y		J5441170Y0050		R585	Metal Film			C06004706P520	1
C529	Elect GE	2.2 uF	50 V	M D0402R2087100	1	Q510L/R	2SK117Y		J5441170Y0050	2	R586	Chip Thick			C200033360200	1
C530/531	Elect GE	4.7 uF	50 V	M D0404R7087100	2						R587	Metal Film			C06004726P520	1
C532	Ceramic Chip T.C	100 pF	50 V	D010101167210	1		Resistors				R588	Chip Thick			C200010260200	1
C533	Ceramic Chip T.C	0.1 uF	50 V		1	R500	Chip Thick	820 kohm 1/10W .		1	R589L/R	Chip Thick			C200010460200	2
C534	Elect GE	0.47 uF	50 V		1	R501L/R	Chip Thick	100 kohm 1/10W .		_	R590	Chip Thick			C200047260200	1
C535	Ceramic Chip T.C	22 pF	50 V		1	R502L/R	Chip Thick	22 kohm 1/10 W			R591	Metal Film	47 ohm	1/5 W J	C06004706P520	1
C536/537	Elect GE	4.7 uF	50 V			R503L/R	Chip Thick	10 kohm 1/10W .		2	R592L/R	Chip Thick	3.9 kohm	1/10 W J	C200039260200	2
C538/539	Ceramic Chip T.C	100 pF	50 V		2	R504L/R R505L/R	Chip Thick Chip Thick	100 kohm 1/10W J 100 kohm 1/10W J		2	R593	Chip Thick	820 kohm	1/10 W J	C200082460200	1
C540 C541D/542	Elect GE	10 uF	50 V 50 V		1	R506L/R	Chip Thick	10 kohm 1/10 W J		2						
C541D/542 C543LD/RD	Ceramic T.C Axial Ceramic T.C Axial	100 pF 100 pF	50 V			R507L/R	Chip Thick	220 kohm 1/10 W J			PCB14	ASSEMBLY P.C.E	BOARD AC-3		7028040888200	K
C544L/R	Film Polyester	0.1 uF	63 V		2	R508L/R	Chip Thick	56 kohm 1/10 W J		2	PCB14	ASSEMBLY P.C.E	BOARD AC-3		7028040889600	A
C545L/R	Film Polyester	0.1 uF	63 V			R509L/R	Chip Thick	4.7 kohm 1/10W J		2	PCB14	ASSEMBLY P.C.E	BOARD AC-3		7028040891000	D
C546L/R	Ceramic Chip T.C	100 pF	50 V			R510	Chip Thick	100 kohm 1/10W J	C200010460200	1	PCB14	ASSEMBLY P.C.E	SOARD AC-3		7028040892400	RDS
C547L/R	Elect GE	2.2 uF	50 V	M D0402R2087100	2	R511L/R	Chip Thick	470 ohm 1/10W J	C200047160200	2		Capacitors				
C548L/R	Elect GE	2.2 uF	50 V	M D0402R2087100	2	R512/513	Metal Film		C06004706P520	2	C801	Ceramic Chip T.C	0.022 uF	25 \/ 7	D011223177210	4
C549L/R	Elect GE	2.2 uF		M D0402R2087100		R514L/R	Chip Thick	100 kohm 1/10W J		2	C802~804	Ceramic Chip T.C	0.022 ur		D011223177210 D011104177210	3
C550L/R	Ceramic Chip T.C	100 pF	50 V			R515L/R	Chip Thick	820 kohm 1/10W J		2	C805	Elect GE	47 uF		D040470084100	1
C551L/R	Elect GE	2.2 uF	50 V			R516L/R R517/518	Chip Thick Metal Film	100 kohm 1/10W J	C200010460200 C06001026P520	2	C806	Ceramic Chip T.C	0.1 uF		D011104177210	1
C552L/R	Ceramic Chip T.C	100 pF	50 V 50 V			R519L/R	Chip Thick		C20001026F320	2	C807	Elect GE	47 uF		D040470084100	1
C553L/R C554L/R	Ceramic Chip T.C Elect GE	0.1 uF 0.47 uF	50 V			R520L/R	Metal Film	2.2 kohm 1/5 W J		2	C808	Ceramic Chip T.C	75 pF	50 V CH	1 D010750167210	1
C555L/R	Ceramic Chip T.C	22 pF	50 V			R521	Carbon Film	100 kohm 1/5 W J		1	C809	Ceramic Chip T.C	0.01 uF		D011103177210	1
C556L/R	Elect GE	4.7 uF	50 V			R522	Metal Film	47 ohm 1/5 W J	C06004706P520	1	C810/811	Ceramic Chip T.C	0.1 uF		D011104177210	2
C557L/R	Ceramic Chip T.C	100 pF	50 V			R523	Chip Thick	100 kohm 1/10 W J	C200010460200	1	C812	Ceramic Chip T.C	0.01 uF		D011103177210	1
C558L/R	Elect GE	4.7 uF	50 V	M D0404R7087100	2	R524	Chip Thick	10 kohm 1/10W J		1	C813 C814	Ceramic Chip T.C Elect GE	0.001 pF		1 D010102167210	1
C560L/R	Elect GE	10 uF		M D040100087100	2	R525	Chip Thick	22 kohm 1/10 W J		1	C815	Ceramic Chip T.C	1 uF 0.1 uF		D040010087100 D011104177210	1
C561LD/RD	Ceramic T.C Axial	100 pF		J D001101077530	2	R526	Chip Thick	100 kohm 1/10W J		1	C816	Elect GE	47 uF	25 V M	D040470084100	1
C562	Elect GE	47 uF		M D040470084100	1	R527	Chip Thick	1.5 kohm 1/10W J		1	C817	Elect GE	1 uF		D040010087100	1
C563	Ceramic Chip T.C	100 pF	50 V		1	R528 R529/530	Chip Thick Chip Thick	22 kohm 1/10W J		1	C818	Elect GE	47 uF		D040470084100	1
C564	Ceramic H/K Axial	0.1 uF		Z D005104097530	1	R531L/R	Chip Thick	100 kohm 1/10W J	C200010460200		C819~821	Ceramic Chip T.C	0.1 uF		D011104177210	
C565L/R C566/567	Ceramic Chip T.C Elect GE	1000 pF 2.2 uF		CH D010102167210 M D0402R2087100		R532	Chip Thick	1 kohm 1/10 W J		1	C822/823	Ceramic H/K Axial	2200 pF		D005222773530	
C568/569	Film Polyester	0.027 uF		J D020273068050		R533	Metal Film	47 ohm 1/5 W J		1	C825/826	Elect GE	47 uF		D040470084100	
C570	Elect GE	2.2 uF		M D0402R2087100	1	R534	Metal Film	2.2 kohm 1/5 W J		1	C828	Ceramic Chip T.C	0.015 uF		D011153177210	
C571	Ceramic Chip T.C	100 pF	50 V		1	R535/536	Chip Thick	100 kohm 1/10 W J		2	C829	Ceramic Chip T.C	0.0015 uF		D011152177210	
C572	Ceramic Chip T.C	0.1 uF	50 V			R537/538	Chip Thick	33 kohm 1/10 W J		2	C830/831	Ceramic T.C Axial	33 pF		D001330067530	2
C573	Elect GE	0.47 uF		M D040R47087100		R539	Chip Thick	10 kohm 1/10W J		1	C832	Elect GE	1 uF		D040010087100	1
C574	Ceramic Chip T.C	22 pF	50 V	D010220167210	1	R540/541	Chip Thick	33 kohm 1/10 W J		2	C833	Ceramic Chip T.C	0.1 uF		D011104177210	1
C575/576	Elect GE	4.7 uF	50 V	M D0404R7087100	2	R542	Chip Thick	5.6 kohm 1/10 W J		1	C834 C835	Ceramic Chip T.C Ceramic T.C Axial	22 pF		D010220167210 D001100067530	1
C577	Ceramic Chip T.C	100 pF	50 V		1	R543	Chip Thick	4.7 kohm 1/10 W J		1	C836	Elect GE	10 pF 22 uF		D040220083100	1
C579	Elect GE	10 uF		M D040100087100	1	R544	Chip Thick	82 kohm 1/10 W J		1	C837	Ceramic Chip T.C	0.1 uF		D040220083100 D011104177210	1
C580D	Ceramic T.C Axial	100 pF	50 V		1	R545	Carbon Film	15 kohm 1/5 W J		1	C838	Elect GE	470 uF		D040471081100	1
C581	Ceramic H/K Axial	0.1 uF		Z D005104097530	1	R546 R547L/R	Chip Thick Chip Thick	51 kohm 1/10W J	C200051360200 C200010260200	2	C839/840	Ceramic Chip T.C	0.1 uF		D011104177210	2
C582L/R	Ceramic H/K Axial	220 pF	50 V 50 V		2	R548	Chip Thick	100 kohm 1/10 W J		1	C841	Elect GE	470 uF		D040471081100	1
C583	Ceramic H/K Axial Ceramic Chip T.C	220 pF 0.0056 uF		B D011562177210	1	R549L/R	Carbon Film	3.3 Mohm 1/5 W J		2	C842	Ceramic Chip T.C	0.01 uF		D011103177210	1
C584	Ceramic Chip 1.C	0.0000 UF	JU V	D D0113041/1210	•	R550L/R	Carbon Film	3.3 Mohm 1/5 W J		2	C843L/R	Ceramic Chip T.C	0.0015 uF	50 V CH	I D011152177210	
	Connectors					R551	Chip Thick	100 kohm 1/10W J		1	C845L/R	Elect GE	10 uF		D040100087100	
CN203	CNT Ass'y, 220mm,	10P		L021102277320	1	R552	Chip Thick	1.2 kohm 1/10 W J		1	C846L/R/C/W	Elect GE	10 uF		D040100085100	
CN203 CN501	B'D to B'D Wafer, 2.			L101352371910	1	R553	Chip Thick	6.2 kohm 1/10 W J		1	C846SL/SR	Elect GE	10 uF		D040100085100	
CN502	B'D to B'D Wafer, 2.			L101352371510		R554	Chip Thick	4.7 kohm 1/10W J		1	C847/848 C849	Ceramic Chip T.C Elect GE	0.1 uF		D011104177210	2
CN503	CNT Plug, AC 1P			L103010000000	1	R555	Metal Film	2.2 kohm 1/5 W J		1	C850	Ceramic Chip T.C	47 uF 0.1 uF		D040470084100 D011104177210	1
CP602	Wafer, 2.0mm, 9P			L101220090000	1	R556L/R	Chip Thick	100 kohm 1/10 W J		2	C851	Ceramic Chip T.C	0.1 uP 2 pF	50 V Z	D011104177210 D010020117210	
						R557L/R R558L/R	Chip Thick Chip Thick	10 kohm 1/10 W J 22 kohm 1/10 W J		2	C852	Ceramic Chip T.C	18 pF		D010020117210	1
	Diodes					R559L/R	Chip Thick	100 kohm 1/10 W J			C852C/W	Ceramic Chip T.C	0.0015 uF	50 V CH	D011152177210	2
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Ref.No.	Description		Part No.	Q'ty Version	Ref.No.	Description		Part No.	. Q'ty Version	Ref.No.	Description		Part No.	Q'ty Version
C853	Elect GE 47	uF 25 V M	D040470084100		R763C/W	Chip Thick	3.3 kohm 1/10 W	J C200033260200		R894	Chip Thick	10 kohm 1/10 V	J C200010360200	
C854	Ceramic Chip T.C 0.01		D011103177210	1	R764SL/SR	Chip Thick	3.3 kohm 1/10 W			R895	Chip Thick		J C200010000200	
C854C/W	Elect GE 10	uF 50 V M	D040100087100	2	R766SL/SR	Chip Thick		J C200010160200		R896~898	Chip Thick		J C200010360200	
C855	Elect GE 100		D040101082100	1	R767SL/SR	Chip Thick		J C200033260200		R899	Chip Thick		J C200022460200	
C857	Ceramic Chip T.C 22	•	D010220167210	1	R768SL/SR	Chip Thick		J C200010460200			·			
C858	Ceramic Chip T.C 0.01		D011103177210	1	R769SL/SR	Chip Thick		J C200010260200			Miscellaneous			
C859/860	Ceramic Chip T.C 0.1		D011104177210		R770L/R/C/W	Chip Thick		J C200022260200		X801	18.432 MHz		E800184320810	1
C860SL/SR	Ceramic Chip T.C 0.0015		D011152177210		R771C/W	Chip Thick		J C200022260200		X802	24.576 MHz		E800245760810	1
C861/862	Elect GE 3.3			2	R772SL/SR	Chip Thick		J C200022260200		X803	Resonator, Ceramic, 4	.19 MHz	E830419000060	1
C863L/R	Ceramic Chip T.C 0.0015 Elect GE 47		D011152177210 D040470084100	1	R774	Chip Thick	470 ohm 1/10 W	J C200047160200		BPF801	Filter, BPF, 2.88 MHz		E440000010010	1
C864 C865C/W	Ceramic Chip T.C 0.0015		D040470064100	2	R775 R776	Chip Thick Chip Thick	4.7 konm 1/10 W							
C866SL/SR .	Elect GE 10		D040100087100		R777	Chip Thick		J C200047160200		PCB15	ASSEMBLY P.C.BO	ARD SUB SW-2	7028059580000	K,A,RDS
C867	Elect GE 47		D040470084100	1	R778~780	Chip Thick		J C200010360200			Capacitors			Mental Commission of Transport (1700)
C868SL/SR	Ceramic Chip T.C 0.0015		D011152177210	2	R781	Carbon Film		J C0002R2063520		C941	Elect GE 85C	1 uF 50 V	M D040010087100	1
C869~875	Ceramic Chip T.C 0.1		D011104177210	7	R782L/R/C/W	Chip Thick		J C200010460200		C942~944	Elect GE 85C	10 uF 50 V	M D040100087070	3
C876	Elect GE 1	uF 50 V M	D040010087100	1	R782SL/SR	Chip Thick	100 kohm 1/10 W	J C200010460200	2	C945	Elect GE 85C	4.7 uF 50 V	M D0404R7087100	1
C877L/R/C/W	Ceramic Chip T.C 0.0047		D011472177210	4	R783L/R/C/W	Chip Thick	· 2.2 kohm 1/10 W	J C200022260200) 4	C946~952	Ceramic Hik Axial	0.001 uF 50 V	K D005102177530	7
C877SL/SR	Ceramic Chip T.C 0.0047		D011472177210		R784C/W	Chip Thick		J C200022260200						
C880/881	Elect GE 10		D040100085100		R785SL/SR	Chip Thick		J C200022260200			Diodes			
C882~891	Ceramic Chip T.C 0.1		D011104177210	·10	R786/787	Chip Thick		J C200047260200		D941~978	1SS133T, Switching		K000013300520	
C892 C893	Elect BP 47 Elect GE 10		D042470082110 D040100087100	1	R788L/RC/W	Chip Thick	470 ohm 1/10 W 470 ohm 1/10 W			D980~991	1SS133T, Switching		K000013300520	
C894~896	Ceramic Chip T.C 0.01		D011103177210	3	789C/W R790SL/SR	Chip Thick Chip Thick	470 ohm 1/10 W			D992/993	UZ3.3BSB ,Zener		K06003R314520	
C897	•		D040010087100	1	R791	Chip Thick	470 ohm 1/10 W			D994	1SS133T, Switching		K000013300520	1
Gazi	2.000 02		2010010007100	•	R792/793	Chip Thick		J C200022360200			luta mate d Olimonita	• •		
	Coils				R801	Chip Thick	100 ohm 1/10 W			10044 045	Integated Circuits			_
L801/802	Filter Inductor, 68 uH		D330680001020	2	R802	Metal Film		J C06005616P520		IC941~945	HEF4011B, Logic		J040401100030	-
L803~805	BEAD, Chip-Type		7611010000000		R803~805	Chip Thick	1 kohm 1/10 W	J C200010260200	3	IC946 IC947~949	HEF4024B, Logic HEF4011B, Logic		J040402400000	
2000 000	22 12, Simp 1, pe				R806	Chip Thick	4.7 kohm 1/10 W	J C200047260200) 1	10941~949	HEF4011B, LOGIC		J040401100030	3
	Connectors				R807	Chip Thick	150 ohm 1/10 W				Transistors			
CN801	B'D to B'D Wafer, 2.0mm, 11P		L101352371110	1	R808	Chip Thick		J C200022260200		Q941	DTC114TS, NPN		J600114TS0050	4
CN802	B'D to B'D Wafer, 2.0mm, 14P		L101352371410		R809~812	Chip Thick		J C200010260200		Q942~944	KTC3198, NPN		J5023198B0050	
	•				R813	Chip Thick		J C200010360200		Q945	DTC114TS, NPN		J600114TS0050	
	Diodes				R814 R815	Chip Thick		J C200010260200 J C200047260200		Q946~948	BKTA1266, PNP		J5001266Y0050	
D801~805	RLS4148, Switching		K009573221000	5	R816	Chip Thick Chip Thick		J C200047260200		Q949	DTC114TS, NPN		J600114TS0050	
VC101	KV1851, Varactor		K080185100010	1	R817	Chip Thick		J C200010200200		Q950	KTC3198, NPN		J5023198B0050	
					R818/819	Chip Thick		J C200010260200						
	Integrated Circuits				R820	Chip Thick		J C200018260200			Resistors			
IC801	MC14577BP, Monitor		J170145770000	1	R821/822	Chip Thick		J C200010360200		R941~945	Carbon Film	10 kohm 1/5 W	J C00001036P520	5
IC802	NJM2068M, Linear OP		J121206800020	1	R823	Chip Thick	4.7 kohm 1/10 W	J C200047260200) 1	R946	Carbon Film	1 Mohm 1/5 W	J C00001056P520	1
IC803	PM4007A, Analog		J080400700010	1	R824	Chip Thick	100 kohm 1/10 W			R947	Metal Film		J C06003316P520	
IC804	KM68257CJ, Memory RAM		J001682510010	1	R825	Chip Thick	4.7 kohm 1/10 W			R948~950	Carbon Film		J C00001036P520	
IC805	NJM2068M, Linear OP		J121206800020	1	R826	Chip Thick		J C200039260200		R951	Carbon Film		J C00001046P520	
IC806	CS4226, Analog		J080422600010 J080560098110	1	R827	Chip Thick		J C200022360200		R952/953	Carbon Film		J C00001036P520	
IC807 IC808	MC56009F, Analog 74HC76, Logic		J040747600040	1	R828 R829	Chip Thick		J C200082260200		R954 R955/956	Carbon Film Carbon Film		J C00001046P520 J C00001036P520	
IC809	74HCU04, Logic		J040740400200	1	R830	Chip Thick Chip Thick		J C200068360200 J C200027360200		R957	Carbon Film		J C00001036F520	
IC810	uPD78044		J020828521220	1	R831/832	Chip Thick		J C200027360200		R958	Metal Film		J C06001026P520	
IC811/812	HY534256. Memory RAM		J001534256000	2	R833	Chip Thick		J C200047360200		R959	Carbon Film		J C00001036P520	
IC813	74HC04, Logic		J040740400210		R834	Chip Thick	120 ohm 1/10 W			R960	Carbon Film		J C00001836P520	
IC814~816	NJM2068M, Linear OP		J121206800020	3	R835	Chip Thick		J C200047360200		R961/962	Carbon Film	10 kohm 1/5 W	J C00001036P520	2
					R836	Chip Thick	470 ohm 1/10 W	J C200047160200) 1	R963	Metal Film	2.2 kohm 1/5 W	J C06002226P520	1
	Transistors				R837/838	Chip Thick	47 kohm 1/10 W	J C200047360200	2	R964	Carbon Film		J C00001046P520	
Q801/802	2SC1740S, NPN		J5021740S0010		R839/840	Chip Thick		J C200010360200		R965/968	Carbon Film		J C00001036P520	
Q803/804	2SA933S, PNP		J5000933S0050		R841~843	Chip Thick		J C200047360200		R982	Metal Film	2.2 kohm 1/5 W	J C06002226P520	1
Q805/806	2SC1740S, NPN		J5021740S0010	2	R844/845	Chip Thick		J C200010360200						
Q807	DTC114TS, PNP		J600114TS0050	1	R846 R847~856	Chip Thick Chip Thick		J C200010260200 J C200047360200			Miscellaneous			
Q808	DTA114YS, PNP		J601114YS0050	1	R857	Chip Thick		J C200047360200		CP941	Wafer 2.5MM, 6P		L102526700600	1
Q809L/R Q810C/W	DTC323TK, NPN DTC323TK, NPN		J502323000050 J502323000050		R858	Chip Thick	470 ohm 1/10 W							
Q811SL/SR	DTC323TK, NPN		J502323000050		R859/860	Chip Thick		J C200047160200						
Q812	DTC114YS, NPN		J6020114Y0050	1	R861/862	Chip Thick	100 ohm 1/10 W				SS'Y (PCB4) INCLUDES THE F	OLLOWING BOARDS.		
4012	2.0,		***************************************	•	R863/864	Chip Thick		J C200022360200			CB TONE (PCB5).			
	Resistors				R865	Chip Thick	5.1 kohm 1/10 W	J C200051260200) 1		CB HP/SPK SWITCH (PCB6).			
R750		kohm 1/10 W J	C200010460200	1	R866	Chip Thick		J C200010560200			CB TACT SWITCH (PCB7). CB PUSH SWITCH (PCB8).			
R750C/W	•		C200010460200	2	R867	Chip Thick		J C200047360200			CB ENCODER (PCB9).			
R751		kohm 1/10 W J		1	R868/869	Chip Thick	470 ohm 1/10 W			(3) THE M33 T P	LHOODER (FOD3).			
R752L/R	•		C200010160200	2	R870	Chip Thick		J C200033360200		INDIT DOD AC	S'Y (PCB10) INCLUDES THE F	OLLOWING BOAPDS		
R753L/R	Chip Thick 3.3	kohm 1/10 W J	C200033260200		R871~876	Chip Thick		J C200010360200			CB INPUT&VIDEO (PCB11).	CLLOTTING BUARDS.		
R754	•	kohm 1/10 W J		1	R878~880	Chip Thick Chip Thick	470 ohm 1/10 W	J C200047160200 J C200082060200		.,	CB SPEAKER (PCB12).			
R754L/R			C200010460200		R881 R882	Chip Thick	680 ohm 1/10 W			(E) 111E A33 T P				
R755L/R	•		C200010260200		R883	Chip Thick	4.7 kohm 1/10 W							
R756/757	•		C200015060200		R884	Chip Thick		J C200010360200						
R758C/W R759C/W			C200010160200 C200033260200		R885~888	Chip Thick	100 kohm 1/10 W							
R761C/W	•		C200033260200 C200010260200		R889	Chip Thick		J C200018360200						
R762L/R/C/W			C200010200200		R890~893	Chip Thick	100 kohm 1/10 W	J C200010460200) 4					
	F													

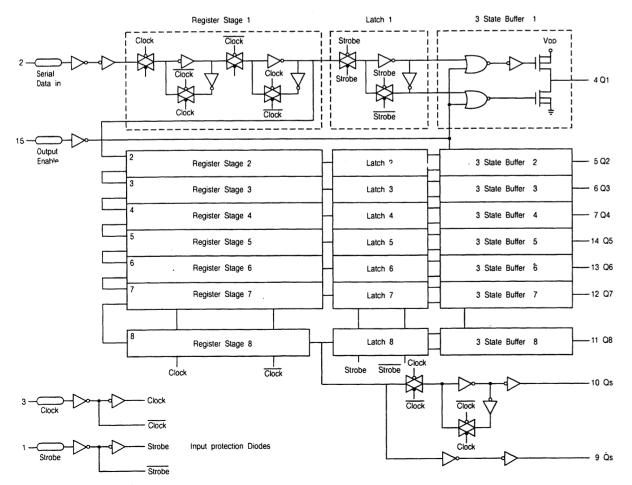
IC FUNCTIONAL BLOCK DIAGRAM

Model No.: R-925R/R-925RDS

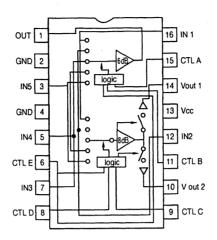
IC1: LM7001M



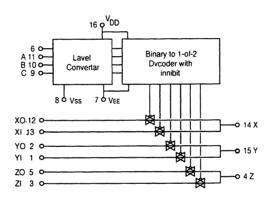
IC 453: MC 14094B



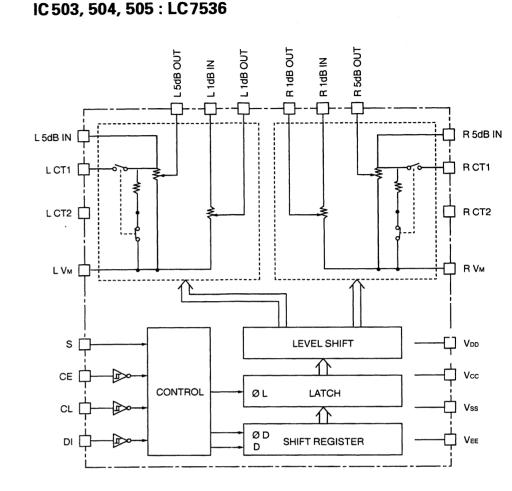
IC 451: BA7625



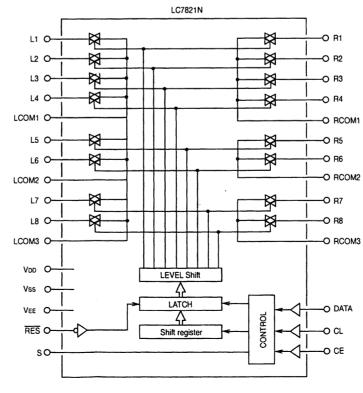
IC 452, 502: MC 14053B

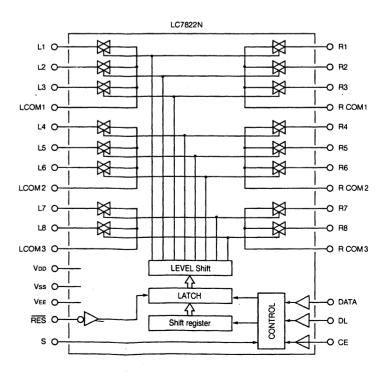


IC 401, 450: LC782IN

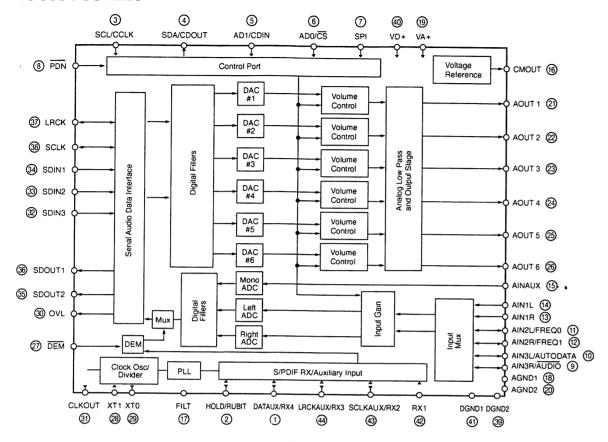




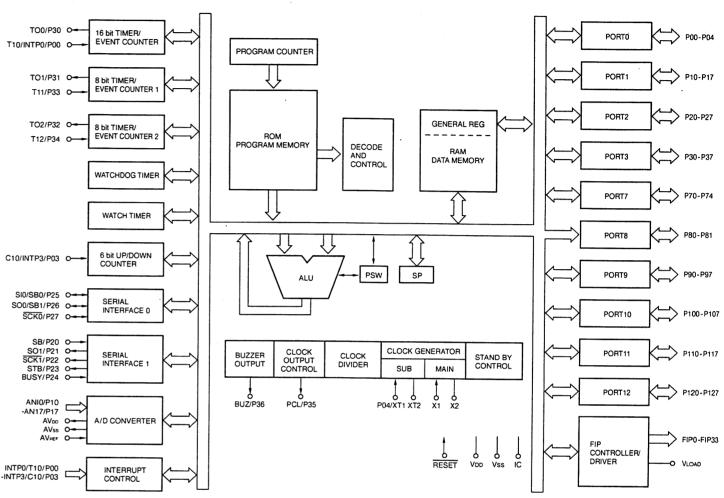




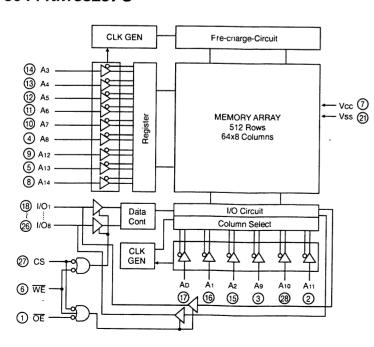
IC 806: CS 4226



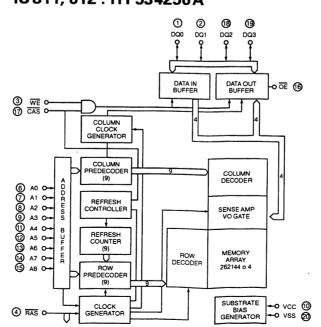
IC 810: UPD 78044A



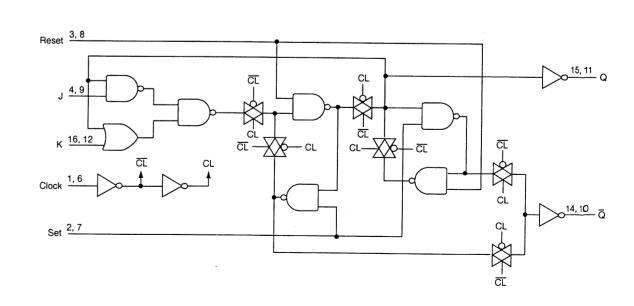
IC 804: KM 68257 C

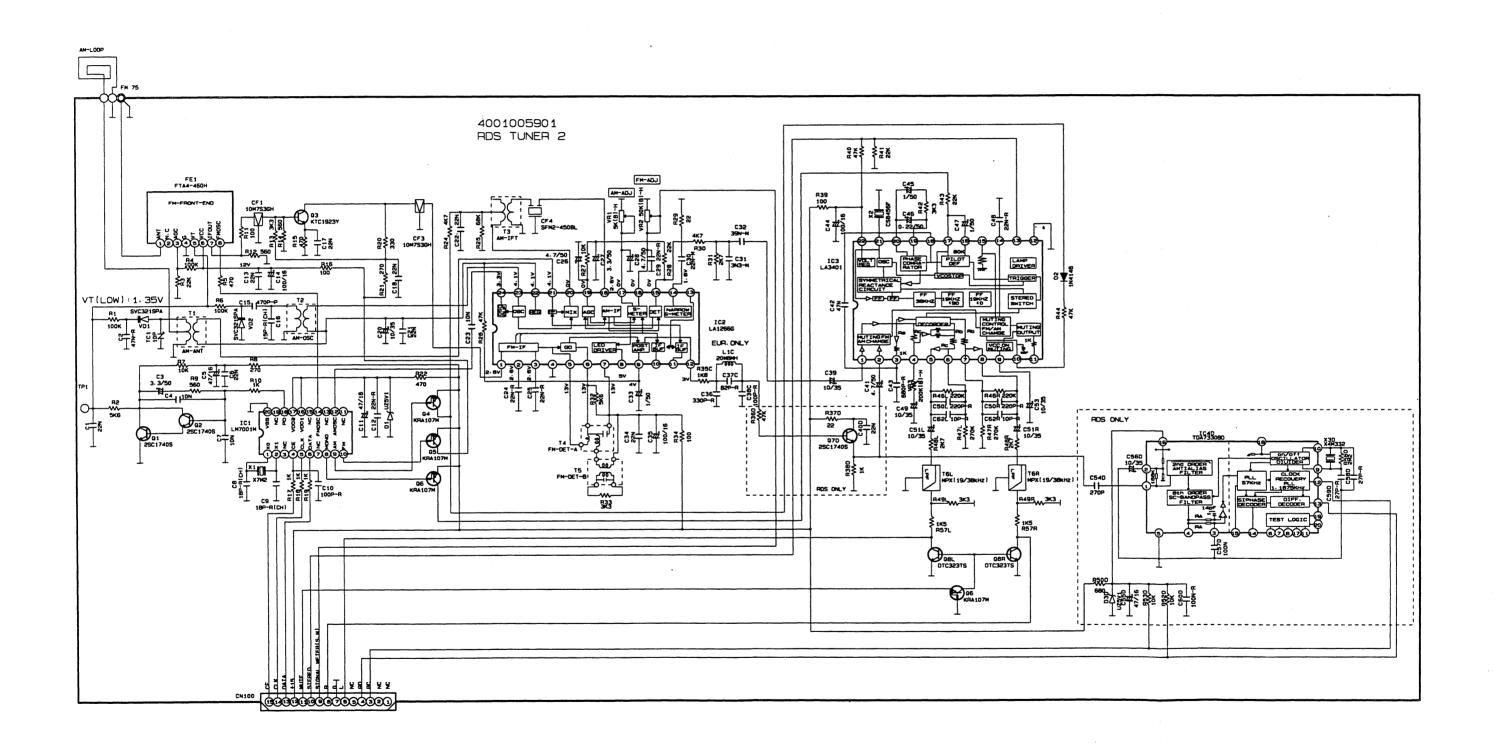


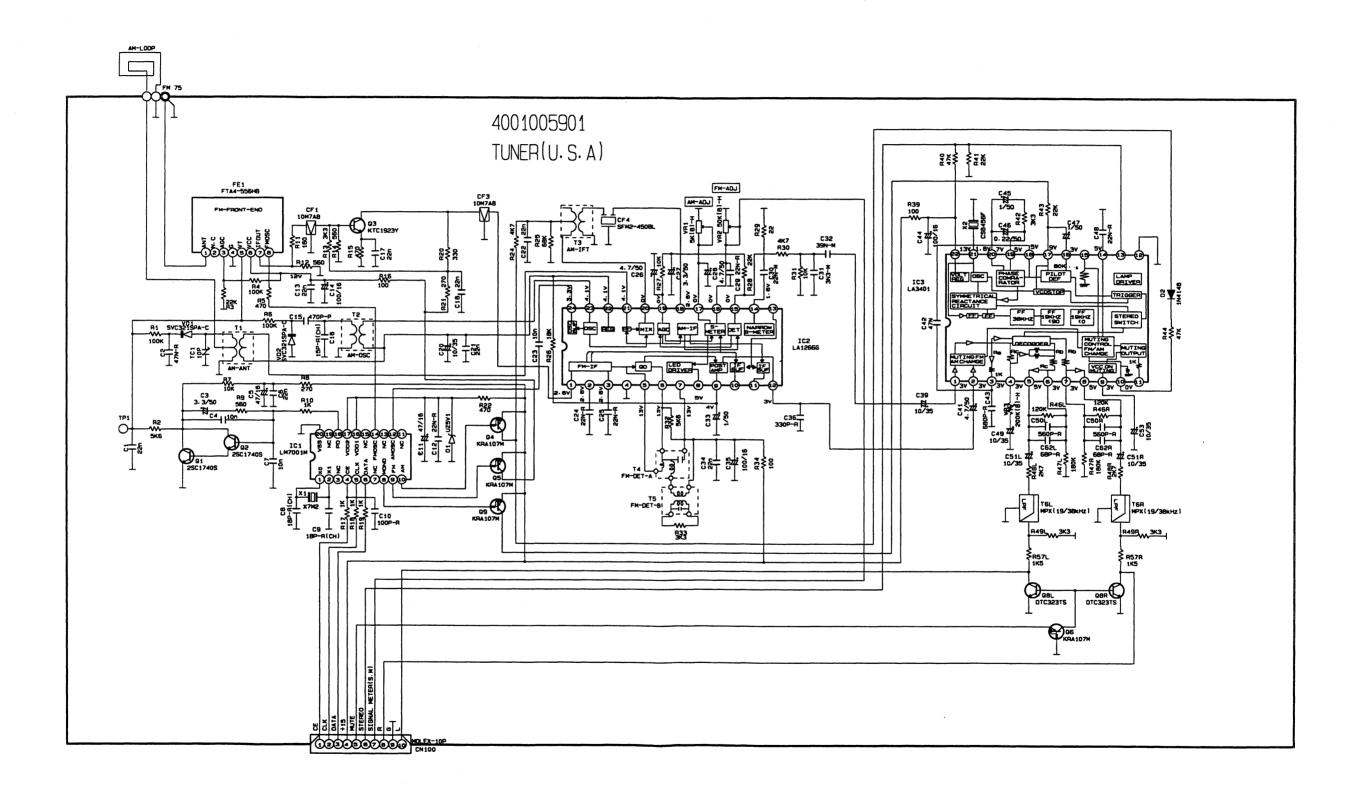
IC 811, 812 : HY 534256 A

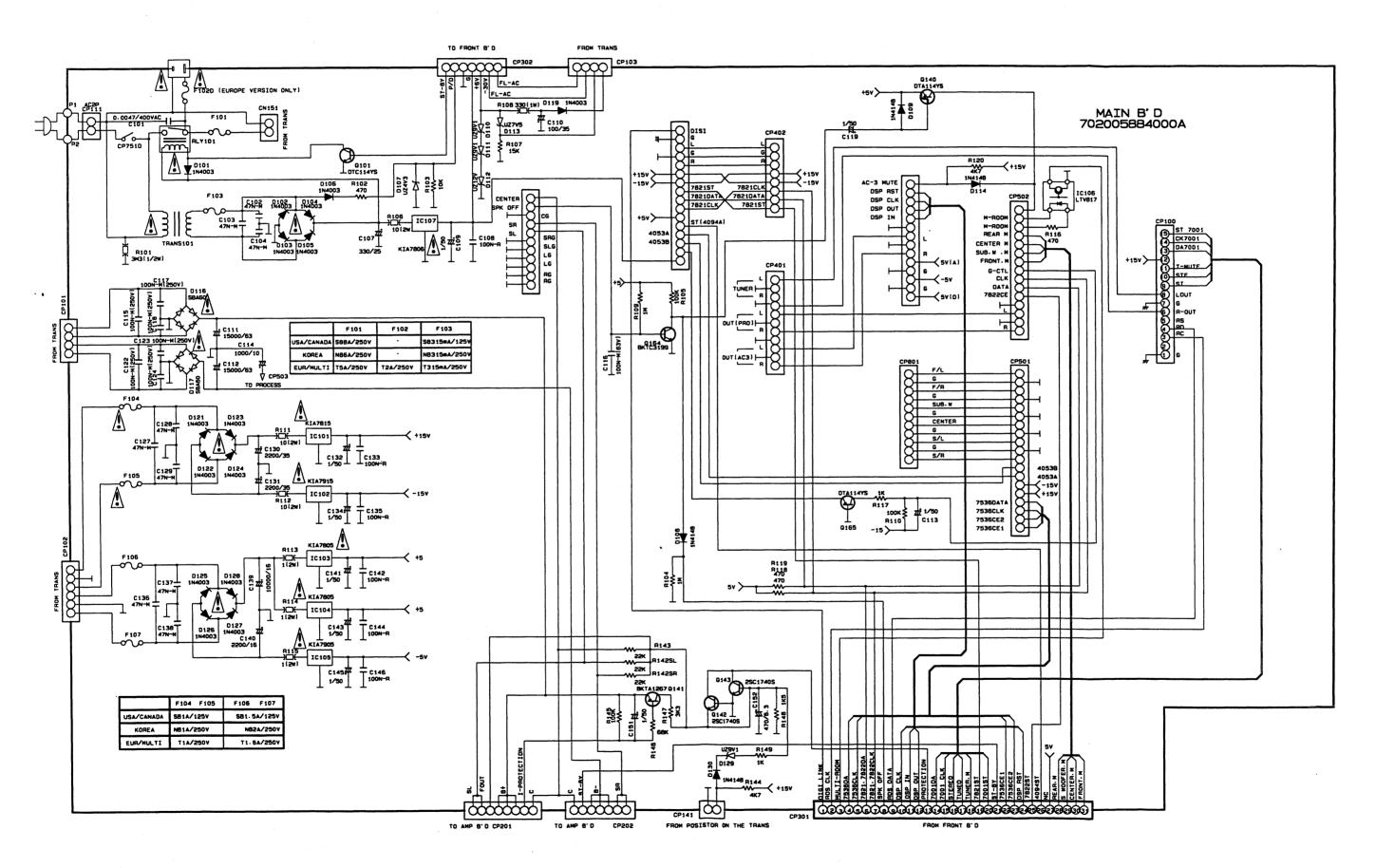


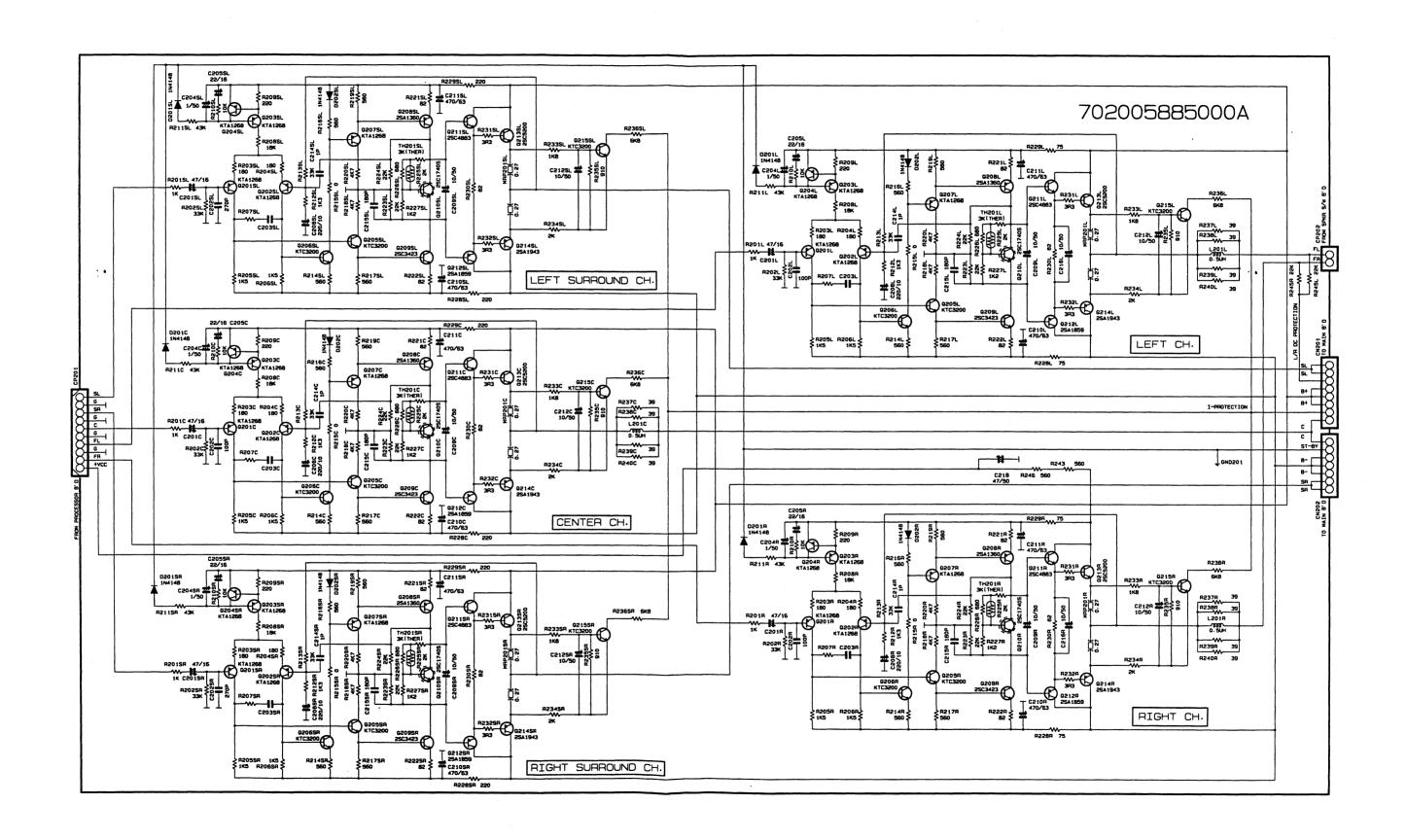
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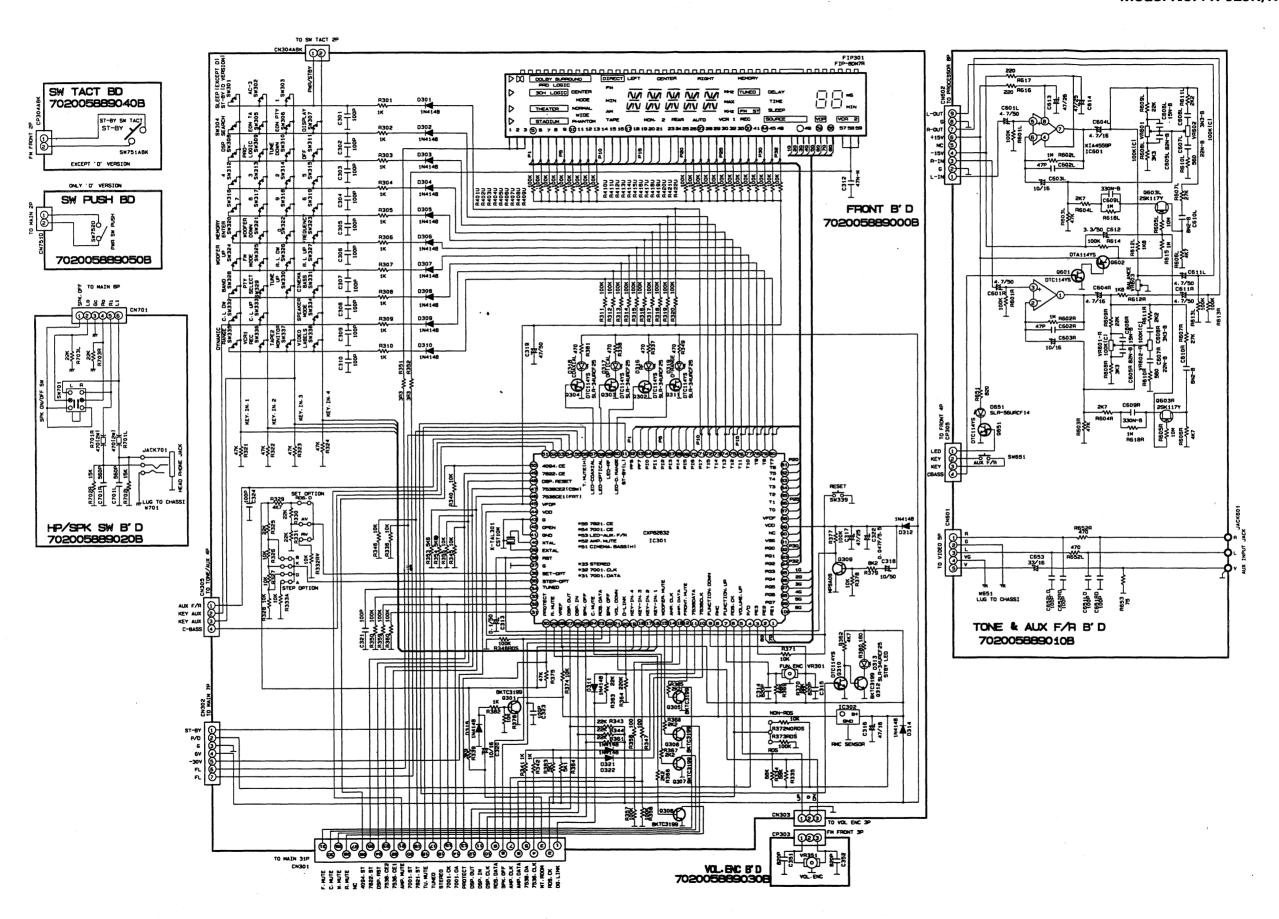






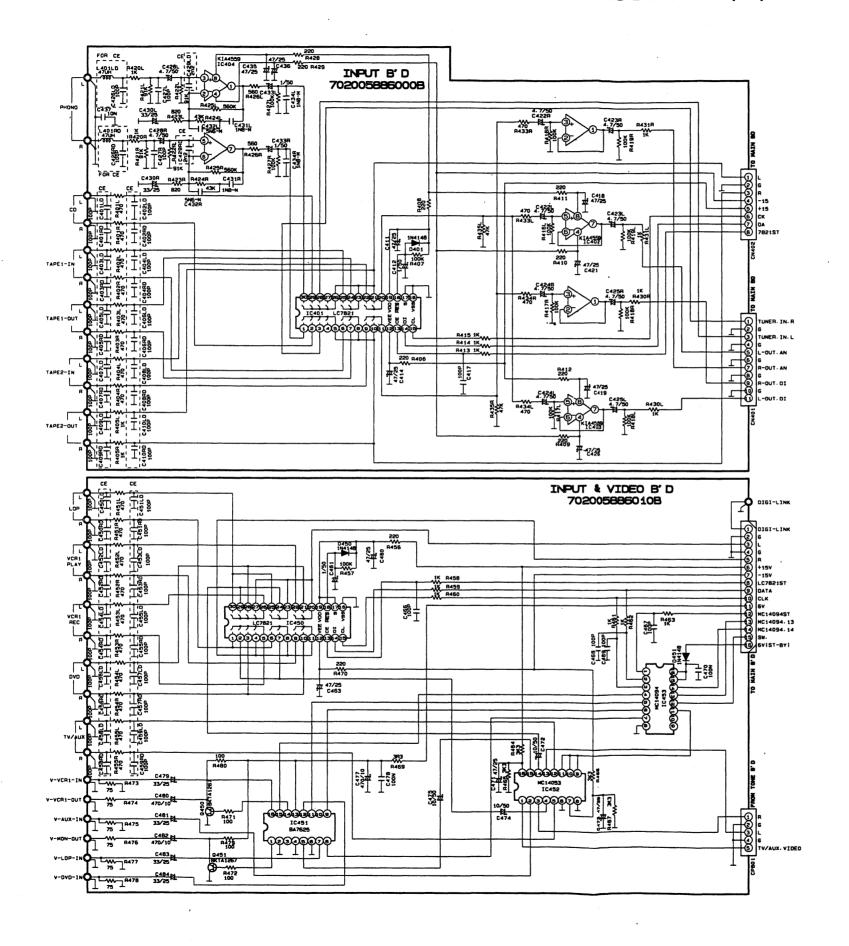


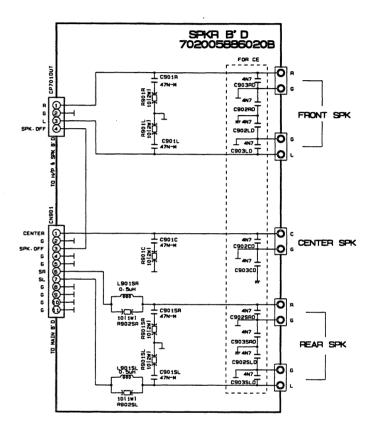


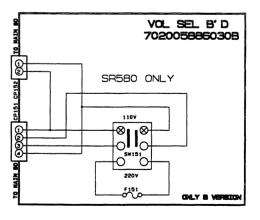


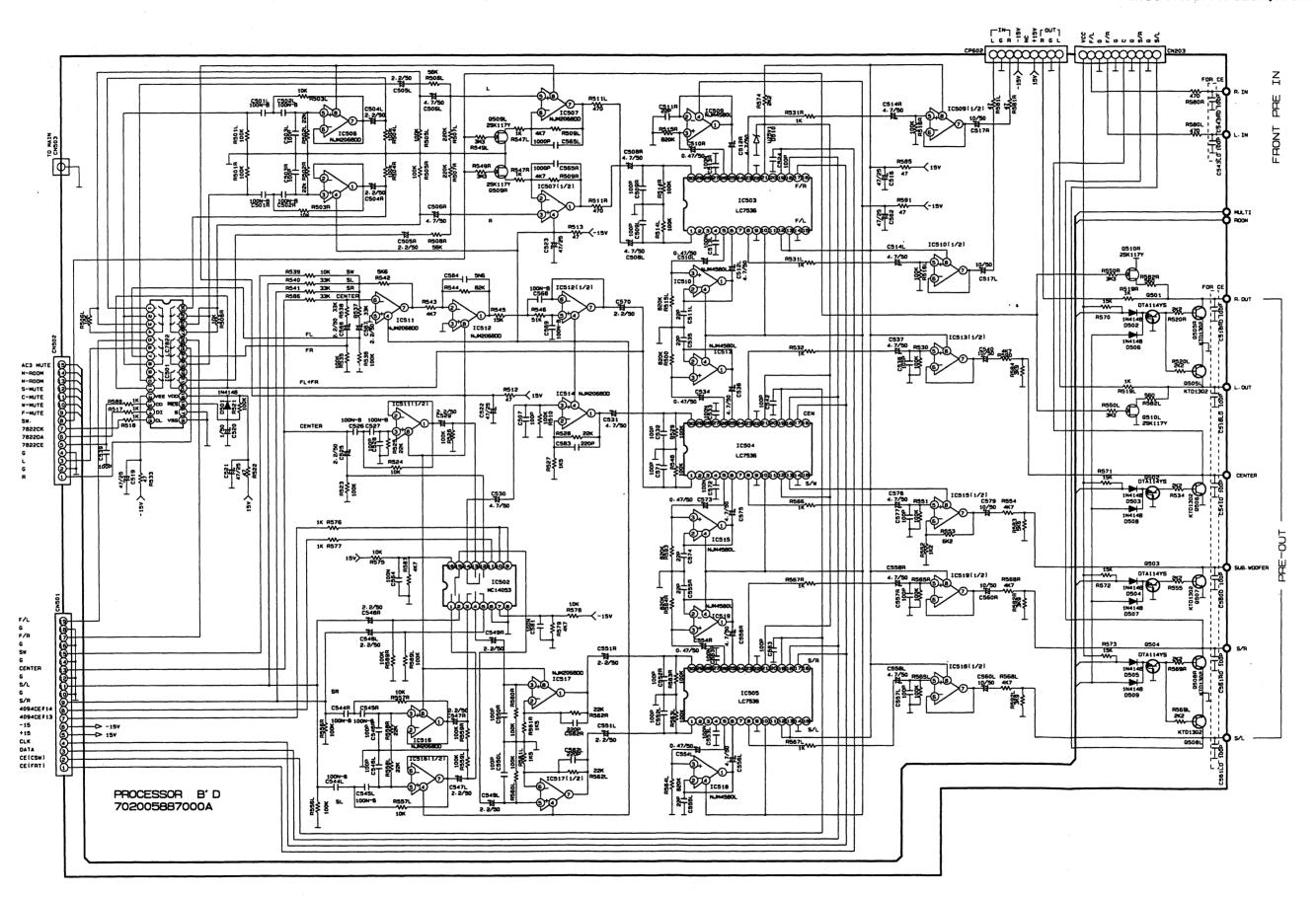
SCHEMATIC DIAGRAM (VI)

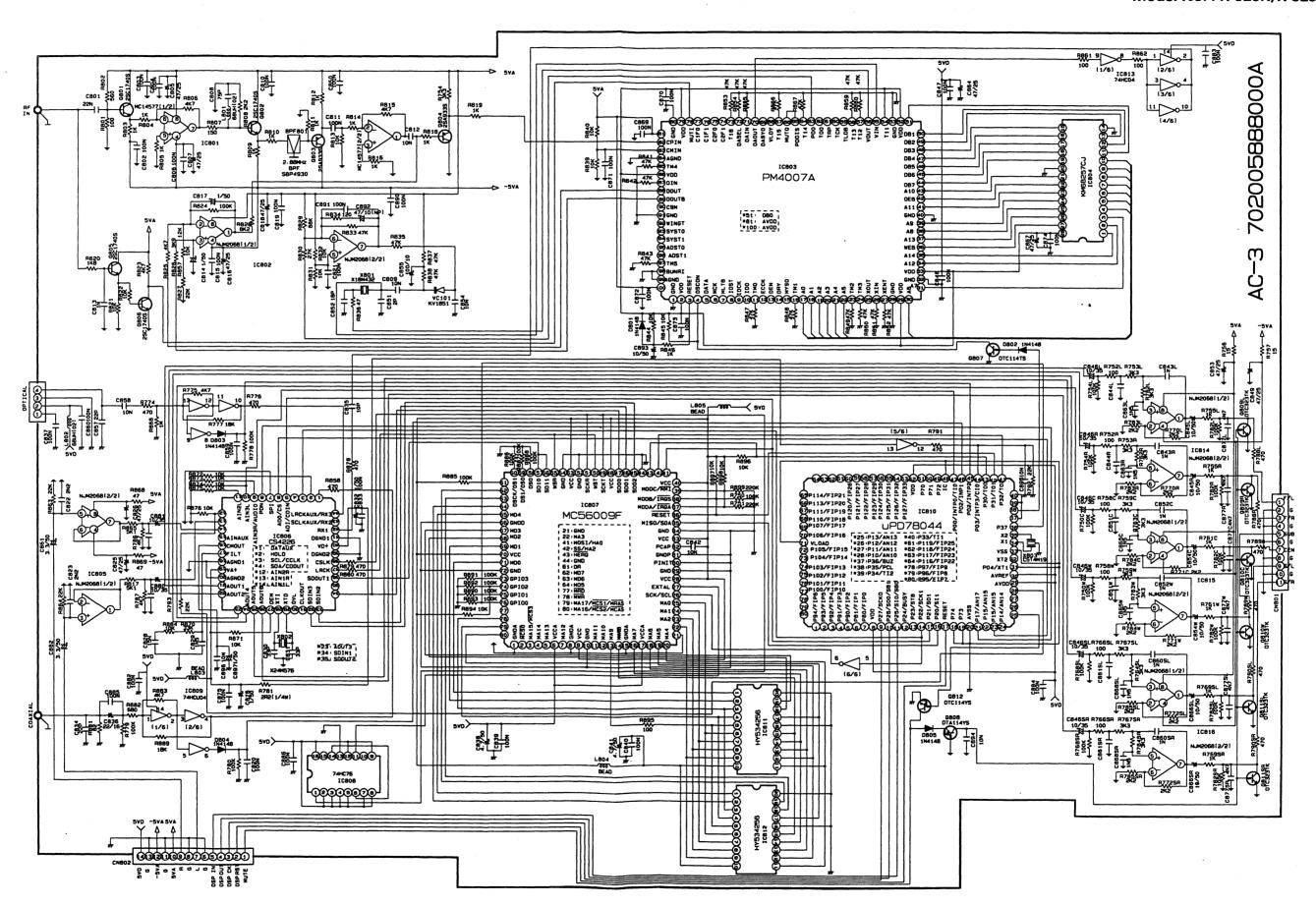
Model No.: R-925R/R-925RDS





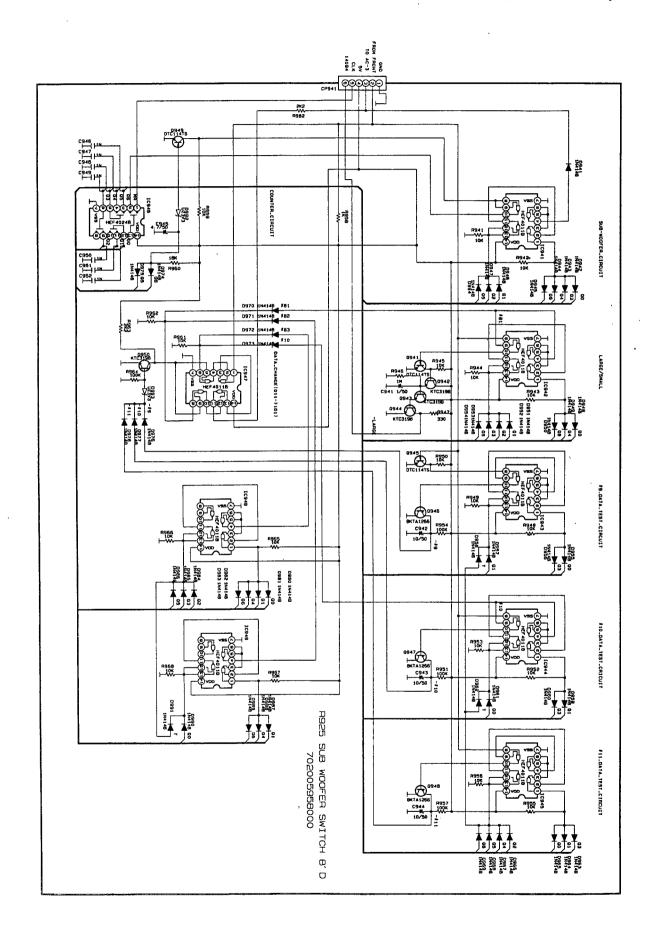






SCHEMATIC DIAGRAM (IX)

Model No.: R-925R/R-925RDS



AC-3 NEW PARTS for R-925

PART	ITEM	MAKER	REMARK	BLOCK	EXTERIOR
AMP	2SC5200		POWER TR		
	2SA1943		POWER TR		
	2SC1740S		BIAS TR		
	2SC4883				
	2SA1859			, , , , , , , , , , , , , , , , , , , ,	
MAIN	SBA60		DIODE		
	LTV817	***			
	KIA7815				
FRONT	CPU	SONY	SONY 100PIN		
AC-3	XCF56009FJ81	MOTOROLA	DSP	• •	
	CS4226	CRYSTAL	A/D/A CONVERTER		
	PM4007A	PIONEER	DEMODULATER		
	KM68257CJ-15	SAMSUNG	SRAM		
	MC74HCU04ADR2	MOTOROLA	INVERTER,CHIP		
	MC74HC04AD	MOTOROLA	INVERTER,CHIP		
	SUB CPU	NEC	NEC 80PIN		
	BPF SBP-4930	TDK	2.88MHz		
	KV1851	TOKO	VARACTOR		
	MC74HC76N	MOTOROLA	J-K FF,CHIP		
	MC14577CP	MOTOROLA			
	NJM2068M	JRC	CHIP		
PROCESSOR	LC7536	SANYO	VOL IC		
	NJM4580L	JRC	OP-AMP		
	MC14053BD	MOTOROLA	SWITCHING, CHIP		
	LC7822	SANYO			
	NJM2068DD	JRC	OP-AMP		
INPUT	BA7625				
	MC14094				
	KIA4559				
	LC7821	SANYO			
	HY534256ALJ-60	HYUNDAI	DRAM(1M)		

PIN CONNECTION DIAGRAM OF DIODES, TRANSISTORS AND ICS

BA7625 74HC76 MC14053 MC14094	LC7821 LC7822 LC7536	CXP82852 UPD78044 MC56009F 65 64 80 24 25	LM7001/M TDA7330BD
LA3401 LA1266	NJM2068	KIA4559P/KIA7555P NJM4580L	PM4007A 81 80 100 51 1 50
CS4226	KA7815 KA7806 KA7805	MPSA06 E B C	SK117
2SA1360 2SC3423	KA7915 KA7905	DTA114YS KRA107N DTC114YS DTC323TS 2SC3199Y 2SC1740 KTA1267	2SC3855/2SC3854 2SA1491/2SA1490
KTC2240/KTC3200 KTC1923Y/KTC3194 KTA1268	D5SBA60	ZENER IN4003 IN4148	SVC321SPA-C